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Sat. Aug. 17. Final day at Iquitos before leaving for upriver. Finished going over the Jessmann Herbarium^{S.}, photographing 93 types in all. Found no specimen of "cube" but in J's notebook were two references to "barbasco" and "barbasco legitimo." These numbers doubtless only at Berlin. Wrote Harms asking ~~for~~ ^{that} names and photos of these to send Washington. Packed and sent baggage to dock in mule-cart. Made final visits to the clubs and, with several additional drinks at dinner, boarded ship in gay mood. First time I ever sailed at night. The "Alberto" is the largest boat of the upper Amazon, and was brilliantly lighted and crowded with passengers and their friends. D. and Sr. Augustin, a German of Iquitos who speaks the most perfect English of any foreigner we have met here, came to see us off. Had Cabin 7, a 4-berth room, but with only one other passenger. The berths are long enough even for us.

Sun. Aug. 18. All day proceeding up the Amazon. About 4 p.m. reached a clearing close to the junction of the Marañon and Ucayali, where the Amazon begins. Tried to buy oranges and beer but tho they were both on hand, no one wanted to take the trouble to sell them. (Our boat is bone-dry. Last night the "barboy" assured us there was plenty of beer on board, but apparently there were only 6 bottles, and passengers finished these last night. Beer costs 1.50 soles or 60¢ U.S.C., too dear for most passengers, so it doesn't pay the boat to carry much.) There were many peons at this tienda, buying pisco. We stayed an interminable time at this place, and as the sun set, the view of the beginning of the Amazon became very colorful. However, I would scarcely use the flowery language of one writer in describing this junction point. The "Beatriz", which had passed us and been passed by as frequently all day, came up and went on up to Ucayali while

we went up the Marañon. We gave no mournful farewells to that ship, as the trip from Maziza on it had not been particularly enjoyable.

Mon. Aug. 19. As the "Alberto" is a wood-burner about four stops are made within each 24 hours to take on wood. Naturally these stops are at clearings and collecting may or may not be good. About 10 a.m. we reached a place near the mouth of the Rio Tigris, where, in a short time, we got about 25 numbers. A few hours later, at a long stop, we collected only about half a dozen things, yet in both cases the woods looked equally good. At this latter stop I found a tree of *Pourouma* cut down but ~~not~~ covered with the worst ants I have ever met with. Their bite is like a bee's sting. I applied mud and they ^{pain} soon left. The rest of the day was uneventful. These steamer trips are very stupid. The passengers are mediocre, hog the

shower and wash basin, and show little of the thoughtfulness ^{that} passengers on a crowded ship usually do. Another pair of clippers stolen. Left them on a table for five seconds alone, and someone yipped them. Al and I wrote part of an article on habitats.

Tues. Aug. 20. We are making better time; only two stops and these in such uninteresting places that we did not get off. Rained nearly all day and quite cool. Had to get out heavy clothes and blankets. Wrote Miss Shields.

Wed. Aug. 21. Were on the Rio Huallaga when we woke, a narrower stream than the Marañon, with much cleared land, at least toward its mouth. Sun is shining. Good news! The Dispensador just told me they had taken on a supply of beer. So we had some.

Thurs. Aug. 22. Stopped at Puerto Arturo, a sugar plantation owned by Sr. Ibarico, a Cornell graduate. Invited us to visit him and collect around there. At 10:30

docked at Yurimaguas. Big crowd gathered on shore. Y. is built on the banks of the river, showing quite a collection of thatched roofs. Waited till the Subprefect made him appearance, passing thru the crowd and onto the gang-plank with a good deal of ceremony. He is very simpatico. Within 20 minutes after landing we had rented a big room from Sr. Miguel Costa, with a big patio behind, and we have the use of his shower; had presented a letter to Kahn y Cia., who will get us porters for Tarapoto; and had obtained a local boy for guide (1.50 a day). Put up stove and in pm (after lunch at Hotel Mayo) went back of town to collect. The days of idleness at Iquitos and on the boat had ruined me and I had no pep. The vegetation looked most ordinary - Tinnian species.
Fri. Aug. 23. Al and the two boys went off on an all-day canoe trip while I worked on yesterday's plants.

Found those collected by Al small,
more than $\frac{3}{4}$ of the whole (70 in all).
Wrote G. E. G., note to WRM, Jerry, & finished
Joyce's letter.

Sat. Aug. 24. Went with the two boys to
Punto Arturo, a short paddle down a
across-stream. Went to forest back of
plantation, a ~~low-lying~~ woods rather
dry (not like the terribly wet palm
jungle where there is little) and had
fine collecting. New Melastomes & Rubs
but many trees and tall shrubs which
I did not recognize; many with round
or ovoid ^{yellow} fruits ± 1.5 cm. in diameter.
Wonder what they can be; many
tricky aroids, of Philodendron type.
Back about 3 p.m., and after coffee
stuck upstream along shore. Woods
looked good but it was late and the
mosquitoes were coming on. Played
Casino with Sr. Iberico, his wife, and
a girl friend. A foolish game, and
the insects were terrible.

Sun. Aug. 25. Tony and I went back to
the place last reached yesterday p.m.
and continued on to a large chacra
near the river. Many things different
from yesterday. Got 7 numbers off
a big jacum tree. All the time I felt
tired and weak under my knees.
Got back at 11:30, all too early but
we were finding little new, and I felt
rotten. Several guests at dinner.
Paddled home about 3 p.m., a 2-hour
hard-going upstream. Al returned a
little later, having visited a barbasco
and gotten several paquetes en route.
Mon. Aug. 26. Worked all day on
my plants and in evening on part of
Al's. Bothered by the poor condition
of the "boards", as it takes about
12 hours longer to dry average specimens.
I got 221 numbers in the day and a
half - no conscious duplication.
Al and the two boys with a cargadero
left for Balasapeto, a 6-day trip.
Rained hard soon after they started.

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Tues. Aug. 27. Woke up about 3 am. with a hard chill. Can it be malaria? Took 15 grains of straight quinine and three pills of plasmon quina. All this gave me terrible head when I finally got up. My hands were so numb I couldn't tell if plants from the stoves were dry. Went to put in Al's plants, but ran out of driers, and had to wait ^{this} last package until enough could be got off a stove. ^{Lanares} ~~Boy~~ came back at 4 pm with 6 bundles from Al's first day. Man brought in 12 manojas of "imbe" roots (pd \$2.50).

Wed. Aug. 28. Worked ~~at day~~ on Al's plants. Boy arrived in evening with 5 more bundles. In am. Lanares and I found time for a short hike back of Yurimaguas. Got a few plants. Saw a huge barbasco of about 500 plants; owner -

Thurs. Aug. 29. Finished Al's plants and my own of yesterday. These days not very interesting; only licks from seeing what Al

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got and reading his letters. I leave the room only for meals. Not sunny weather, fine for drying driers.

Fri. Aug. ³⁰ ~~29~~. Had a visit from Sr. Hermann Augustin, nephew of our friend in Iquitos who has been in charge of work of clearing the ferrovia. Job has been called off - temporarily only, I hope - so he is hanging around i. waiting for orders. He will arrange for me to work the ferrovia region. In pm.

Lanares and I walked out to Fortaleza, the first hacienda on the road to Balsapuerto, owned by Sr. Evaristo Parde, one of the most likable hosts I have met here. He promised to arrange a barbasco-fishing party for us. He serves his guests with much fruit, piña, papaya, watermelon, etc.

Sat. Aug. 31. Rather an easy day as up ^{when 16 packages arrived} plants came from Al till 7 pm. Fixed up yesterday's small collection, got hair cut, etc. Augustin and his brother Karl and I threw a small party in the park.

Sun. Sept. 1. The Augustinos took me over to Santa Rosa, about 2 1/2 hours walk north. The trail runs thru dense forest, cutting across the peninsula. Part of the way was following up the Rio Paranaपुरa. Sta. Rosa is an hacienda reminding me a little of Rto. Yacup; it is ~~on~~ the Rio Huallaga; ~~dieña's name~~. She was very simpatica. In pm, went out to begining of r.r. cutting, a slash, nearly straight, thru the jungle, 100 meters wide. The r.r. is planned to run to the Pongo of Manserviche, then west to Pasamayo. Here it well illustrates the rapidity of tropical growth. At this point near Santa Rosa the land was cleared last October; now it is so grown over with shrubs and small trees that progress thru it is almost impossible, and no trail has been kept open.

Mon. Sept. 2. Celebrated my birthday very quietly, a glass of chicha being the only drink. Spent all day on the trail over to Limón, up the Paranaपुरa River. Good woods. Once we heard wood-cutting so

went over. Had hopes of finding cube in flower among the tops of the fallen high trees, but was unsuccessful, tho the plant was growing as a small shrub in the woods at the edge of the clearing. Antonio and two men to be my cargadores and guides arrived in pm. and we packed for the trip, Sr. A. having told us to help ourselves to his left-over stores.

Tues. Sept. 3. Left Sta. Rosa about 6:30 am., paddling down to next bend in river. Took troche thru woods to rr. clearing. Here the vegetation has not yet had a chance to grow up again but I was rather disappointed in finding that the tops of the fallen trees had been burnt up. The logs not yet dry enough to burn, ~~tho~~ rapid progress thru the clearing so the troche follows in the woods alongside. There is an abandoned camp at about Km 15, another at Km. 20, and the final one at Km. 25 (all measuring from Yurimagua).

Reached Km. 20 about 11 am, and lunched. The camp consists, like the other camps, of 4 or 5 low shacks, sleeping quarters, kitchen, eating camp, etc. Was impressed with their cleanliness. How different are the deserted lumber camps in the Adirondacks! In the pm. we followed various troches and made some progress along the clearing. Had had visions of chopped down trees with swell opportunity of collecting on them, but impossible. I have five boys with me, quite a formidable party; they are needed to carry food, bedding, and specimens. They dish up fine meals. One has a gun and many turkeys are shot. Also they get turtles. This was one of the memorable nights, here in a long narrow clearing with the dense jungle all around. Many birds singing and the croaking of frogs. We all slept in one shack in the center as tigers often come into the outer shacks at night. The boys sang

and played games. Some lumber expert should be here. The boys describe the various fallen trunks of giant trees, giving their local (Quechua) names and particular uses. As material for herbarium specimens is lacking in most cases, I did not make any record of their talk. A big tree of "aguanó" (mahogany) was being burned out for a canoe; interesting how they put wet palm leaves around the parts not to be burned.

Wed. Sept 4. Left camp about 6:30 am, four hours later reaching the end of the clearing at Km. 25. Rather tiresome walk as these palms predominate and in palm jungle, as in pine woods home, ^{little} ~~nothing~~ else grows. Camp Km. 25 is on the far bank of the Rio Sapote, to ford which we went a short distance east of the camp. After lunch continued down the troche thru the uncut part of the right-of-way, but got little. After

a swim took press alone and got quite a lot.
Thurs. Sept. 5. Left camp at ^{vent} 6 am, having
 taken an early swim. Tony and Trapidly ahead
 to the canoes. Short wait till men arrived and
 we paddled back to Sta. Rosa for lunch.

Then upriver, the 5 paddlers grabbing plants
 I pointed out on the banks and leaving them
 in my lap. Was well covered with ants but
 we got several new things. Landed at a ^{roche}
 said to be ~~an~~ 1/2 hour (nearly an hour) from
 one of the Acosta's houses. Got back to Yurimaguas
 at 7 pm. Al had returned the preceding Sunday.
 Had a celebration with many beers and
 talked over future plans. We have been
 planning to go to Tarapoto, Spruce's famous
 locality, a 5-day hike from here. On my trip
 to the ferruvia I found I got tired out so
 completely after a ~~short~~ few hours walk, and
 tho no fever attack had come since that of
 Aug. 27, I simply did not feel like taking
 the trip. There were other reasons, such as the
 poor condition of our much-used boards
 and press-ends and the lack of mail for many
 months from Washington with instructions

and information about "cuba". To go to Tarapoto
 would mean much shortened time in Para
 and Manaoas. So tho I knew Al was disappointed
 we decided to take the first boat back to
 Iquitos, work up the Rio Tarma a few days,
 and the first boat to Manaoas and Para.
Fri. Sept. 6. Worked on my plants all day, tho
 feeling rather low.

Sat. Sept. 7. Al went out in am. along a
 trail near the Tarapoto road. I changed diets,
 etc. We have quite a lot of plants ready
 for the stores.

Sun. Sept. 8. Left before breakfast for
 Fortaleza for a day of fishing with
 barbasses as guests of Dr. Pardo. Near
 his house is a long narrow lake,
 somewhat semicircular in shape. Three or
 four streams flow into it. News of the
 event had brought natives from near
 and far; the neighbors came in canoes,
 those from Yurimaguas and other places
 brought nets or spears. We went by
 canoe to the mouth of a small stream,
 then waited some time while different

(This is mashed up by pounding
with a heavy stick)

men arrived with mashed up barbasco. Altogether 100 manojas (about 150 Kg) were used. There were 17 canoes, about 9 of which were used in the actual poisoning of the water. The mashed barbasco was divided up among these canoes, then with calabash bowls the water was scooped up and washed over the barbasco. Soon there was a milky water in the bottom of the canoe about a foot deep. The canoes took various posts and at a signal the poisoned water was thrown overboard. The roots were washed in this fashion 5 or 6 times, and finally, when the poison was all washed out, they were heaved overboard or thrown on the bank. We stood on the shore and, with the sun just right, took many pictures. The actual fishing was not very good. About 10 minutes after the poisoning of the lake was commenced tiny minnows began to float downstream, flopping feebly. Close examination of one I caught

showed the gills to be paralyzed, appressed closely to the body, so that the fish cannot extract oxygen from the water. Thus it is that the fish is not actually poisoned inside and made unfit for eating. Few fish more than a foot long were caught. The waters of the lake had risen, unfortunately, during the night so that the 100 manojas, which had been considered sufficient, was only half the amount that should have been used in the augmented waters. The small tributary had been poisoned and fishing here was the best. But there was none of the fighting for big fish on the part of the boys which we had expected. However, the main purpose of the party as far as we were concerned, the photographing of the poisoning the lake, was a success. Sr. Pardo then gave us a big almerzo, the fish previously caught, small and fried crisp, being

very tasteful. There was one dish new to me, said to be the big local dish, something like a meat loaf, about 8 inches high, with chicken, corn, and many other things mixed together, a very good concoction. We looked over an Indian blow-gun, a pipe about 8 feet long, $1\frac{1}{2}$ inches diameter at base. A wad of cotton is wrapped around the end of the "arrow", about a foot long, and a slight puff shoots the arrow thru the pipe. Objects at long distances away can be hit and there is the advantage that the animal does not take fright at a loud explosion.

We reached Yurimaguas about 3:30 and were greatly surprised to find S. there. The "Eliza", on which he had been traveling for three weeks in the upper Marañon country, made an unexpected call at Y., so, when he found we were still there, he got off. What an interesting trip he has had! Wish one of us might have been along

to collect more. He got 130 numbers, five things, indicative of the many new specimens we might have found. The trip took him to the Pongo of Mansericho, at the head of navigation of the Marañon, up the R. Marona to Parallel 4, and stops were made at the mouths of the R. Pastaza, ~~and~~ ^{and} R. Huallaga, and at many other places along the Marañon. The "Eliza" was a trading boat and long stops would be made up some stream waiting for canoes with balata to arrive.

Mon. Sept. 9. Went out the same trail as took Sept. 7, farther along, and got several good trees and shrubs. Then cut over to the Tarapoto road, but it is too open there, and returned early to Y. In evening the Augustinas were around for bridge, our first game since reaching Peru, just five months ago today.

Tues. Sept. 10. Packed. Many plants yet to be dried and these we are putting either in board or dried for

the "hot room" on the "Alberto", or in drier only to be changed daily. Sailed at 4 p.m., a big crowd to see the boat off. We have Camerote 2, the best of them.

Wed. Sept. 11. A day of slow steaming down the Itzallaga, with innumerable stops for wood and cargo. At where half an hour's stop was made, Tony and I got off and found collecting very good.

Thurs. Sept. 12. We were in the Marañon when I got up. Traveling in more rapid today.

Fri. Sept. 13. Reached Iquitos at 2:30 p.m. and soon were in our old home generously given us again by the S.O. Stores upped up. The Commandante of the "Alberto" dined with us and we then sat around the club talking.

Sat. Sept. 14. Not much to do while waiting for the plants to dry. Letters received yesterday were Maxon (June 21) with memos by Morton & Wachen, Standley (June 24),

Macbride (July 1), Hopkins (June 26). Answered the first and last of these. Wilbraun came in at dinner, having just arrived from the Rio Napo. He is collecting ^{many} woody specimens for Field Museum. Movie in evening.

Sun. Sept. 15. Answered Standley's and Macbride's letters. Soccer game in p.m. and good movie (The Mysterious Woman) in evening.

Mon. Sept. 16. Completed arrangements and packed for trip up the Rio Itaya, just above Iquitos, the mouth being within the city. Sr. Augustin has given us letters to dueños of two haciendas up there, and we plan to stay 5 or 6 days. A S.O. geologist, Kray, is living at our house. He had a breakdown up in the Marañon country; I met him there and saw him on his way to Iquitos. He is very quiet, rather morose, and paces up and down the floor. Mr. Ker asked us to try to cheer him up, but he ~~doesn't~~ hasn't responded much to our invitations. Before dinner he went to the plaza with us and had some beer and cocktails. He and

Al played chess in the evening.

Tues. Sept. 17. Planned to get an early start but the usual delays made 10:30 the hour of leaving. Al and I, Antonio, Emilio Gony, the chief engineer of the S.O. boat San Miguel, Julio Garro, mechanic, were the party. Mr. Ken let us have a large canoe and outboard motor. The British Consul, Mr. Massey, came to the boat to ask us to examine the African oil Palm (*Elaeis guineensis*) introduced on the Florio plantation. Noticed how the bank of the Amazon was packing in near Puerto Belém, near mouth of Taya. Stopped for lunch at Santa Rosa, a soap factory owned by Sr. Legeto (?). Would accept nothing for it but we gave him ^{and} his family a ride upstream, towing their canoe. Reached Soledad about 3:30 p.m., presented our letter, then went on to San Antonio. Sr. Florio is a jovial German, very amiable, speaking English. Hand up for food for our men the. Mixed strong cocktails. After dinner made us help him drink some of the beer we brought him. Developed into quite a talk fest on the

war, the Allies, etc.

Wed. Sept. 18. Al went off with Antonio into forest upstream and I with a local boy to forest inland, each of us getting a lot of numbers. In pm. Al went in ~~our~~ third direction while I took the motor canoe upstream. Strange how these "wooded banks" have such few plants in flower or fruit. Is it the inundation, lack of insects at low water, or what. Anyhow we got only a small number of specimens, but these were all new to us. One showing thing was a Leguminous vine, apparently closely related (if not it) to our cube.

Thurs. Sept. 19. Al and Florio took the motor canoe on a cube-chase up to Peña Blanca, the guide claiming to have seen cube flowers on a chakra there. As usual none were found, the "old" haia having been cut down. Antonio and I went by canoe downstream, but collecting as hard as yesterday afternoon. "Soledad" is quite a contrast to San Antonio, the only similarity being that both are owned

by Germans and everybody drinks. There
 there is a large family, the *dueno* Sr.
 Enrique Pollet, and several sons and
 daughters, this wife having died two
 months ago. We eat at a large table
 in the big open building, the open fire
 being in the center. Small places are
 at each place at the table for yuca,
 bananas, and to lay knives & forks on. There
 are a fine thing, brought from Germany.
 Lots of good-tasting, well-cooked meat was
 served. Made me think of descriptions
 of an English banquet-hall. In pm worked
 on my plants of yesterday and this
 morning. Sr. Pollet, with our engine
 went to Iquitos by canoe late at night.
 All got in in the afternoon.

Tue. Sept. 20. With a guide I went inland
 back of the house. Woods very good when
 not of the palm type. Back at noon and
 I went out in pm.

Sat. Sept. 21. Went along same trail as
 yesterday, twice as far, and found
 great vines of "barbasco", whether on

Cube A or not I am not quite sure.
 Antonio climbed one vine \pm 100 feet, bringing
 down a branch with apparently ~~young~~
 inflorescence buds. Decided to return
 tomorrow. All went out in pm. Sr.
 Pollet returned ~~too~~ late in pm. with
 two exciting bits of news. Krey drowned
 himself from the San Miguel, his body
 later being found. The bank of the
 Amazon at Puerto Belen caved in
 drowning several people.

Sun. Sept. 22. Started about 6:30 for the
 cube section of the forest, Al, Antonio,
 two wood-choppers, and I. Cut down a
 big tree, bringing down several other
 trees. Found the cube inflorescence
 slightly more developed but wholly
 impossible to study. Left Iquitos about
 12, going straight down to Iquitos. By
 5:30 had the stove rigged up, and
 got dolled up for the first time in
 a week. Dennis must have had a
 hell of a time with the suicide of
 Krey. The body was brought back to

our house, coming while D. was peacefully typewriting. Here only two hours but the place smelled terribly. Movie in evening. Mail from Joyce & W.R.M.

Mon. Sept. 23. Worked on plants in am.

Visited Dominic and saw our cabin.

Wrote for Webb, W.R.M., & Lepty.

Tues. Sept. 24. Mainly hanging around.

Wed. Sept. 25. " " " Bought

tickets, carrying a heavy load of silver to pay for them. Paper money is at a premium here. 600 soles were in silver, and the counting of it at the booth here took much time.

Thurs. Sept. 26. Klug and I left early on foot for his shack at Mishuyacu. Sr. Guillermo Klug, if I have not already spoken of him, is of part German descent, his father having founded the Finca Botanica Garden. He devotes his time to butterfly-collecting, selling his specimens mainly in Germany. He has an hacienda on the Rio Itaya ^{about the ferry} between the mouth and Soledad. He and Jesuaman used to work from there. ~~To the~~ Mishuyacu is about 15 km. south of

Iquitos, on the peninsula (or island?) formed by the Itaya and Nanay rivers, nearer the latter. The route follows the carretera being built to the Pastaza, now completed, thru San Juan, San Juan Nuevo, to a little beyond Tierra Blanca, a locality well-named because of the hard white sand everywhere, suggesting that this is an old lake bottom. Shortly beyond Tierra Blanca the highway, here only a clearing, veers to the left, our trail going to the right thru dense forest. As Klug and others had told me, we found the vegetation about San Juan quite different from what it was early in August. Many more flowers were out, and the wood did not penetrate into the woods much on the way out, the numerous run-beds we got along their edge were quite new to me. We reached Mishuyacu about 11:30, four hours after leaving Iquitos. After lunch the man who had carried my luggage out returned to Al with four bundles. Klug and I cut over to

the carretera and followed it out a ways. Found ~~these~~ two small barbasco chacras. Klug's house is a 2-room shack made of of palm (" ") walls and a thatched (palm " ") roof. I slept in a hammock.

Fri. Sept. 27. Klug and I each took boys and went in different directions. He and I have made a tentative arrangement whereby he is to collect plants for sale to various institutions. Hope it works out well. I went over to Lake Mapacocha, then canoed down it ^{and} to the outlet to the Rio Nanay, ~~a~~ a good-sized river, much wider and faster than the Itaya. We did not go into it as my men were landmen, not boatmen, and I feared they would not be able to handle the little canoe in the swift current. Anyhow, the banks of this stream, and of the lake, were as destitute of flowers as those of the Itaya had been. Among the numbers along the lake were a legume with

large thick-concave fruit and a light blue *Psychotria* (?) that pleased me especially. The woods we passed thru on the way to and from the lake were fair; had it not been the last Peru collecting for the expedition I could have obtained more numbers, but I ~~did not~~ avoided re-collecting things which apparently were frequent in the general Iquitos region and did not look too carefully for flowering aroids, as these take so long to dry. When I got back found Klug had collected a lot of good things for me. Apparently he has keen eyes and good discrimination, having, with one or two exceptions, brought in only new things. At Mapacocha I had bought a fish from an Indian, and this, fried crisply, we had for dinner. How good it tasted!

Sat. Sept. 28. We returned early to Iquitos, getting only a few things en route. Putting this collecting in press took most of the afternoon. The

citizens of Iquitos gave a dance tonight for the Peru-Colombian Boundary Commission now staying here. It was a very pretty dance, at the Club Internacional. The our invitations read for 10 o'clock it was after eleven before the dancing started. Mr. Ker introduced us to many of the people, and we had several enjoyable dances. The supper was wonderful, roast turkeys, young pigs, sandwiches, cakes, etc. spread out on large tables. How hard to realize all this was happening 2000 miles up the Amazon, in a region 99 out of a hundred Americans would suppose was given over entirely to wild Indians and animals! As one man pointed out to me, consider the dresses worn by the girls. There are no regular dress-makers in Iquitos nor are ready-made clothes for sale. The girls get fashion books from Paris and New York and concoct gowns themselves. And they turn out simple, effective

things, giving the whole effect something like a dance at the Pan-American Union, the similarity made greater by the likeness between the ball-room at the Club and the Hall of the Nations at the Pan-American building.

Sun. Sept. 29. Al and I went over to the Kluge's for dinner - good feed. Mrs. Kluge is a young, fascinating Iquitan and her sister, also there, is much like her. Afterward we danced to Victrola music, some of their records being very danceable jazz. The Al and I walked out toward Puchana, to give me a chance to bathe in the Amazon - something not yet done tho I have lived on its banks some weeks, - and to collect the three numbers necessary to give us 8500 for our Peruvian trip and to bring my serial number up to 30,000. First we got a Sulax, with globose inflorescences about 2 cm. wide, then a tree with pinkish-white flowers,

the family not recognized; then a large Mimosa-type tree which we may have heard before but certainly not with well-developed flowers. After the swim we found a big Leguminous tree, with large purple flowers and 3-foliate leaves. This was surely new to our collection so we took it, and made it our 30,000, ditching an earlier seed number and substituting our fourth plant of the day for it.

Mon. Sept. 30. Much uncertainty as to the sailing of the *Dominica* and its destination. It is due to go to New York but rumors say it will return to Iquitos from Manaus for more mahogany. The river is low and with a full load the boat cannot get over some shallow spots. So they may go to Manaus, unload, and get more wood at the mouth of the Amazon where they are now loading. D. is going to N.Y., Al and I only to Manaus. But we hope he can go

straight thru to avoid change of the large amount of baggage he is taking in. A three-weeks accumulation of Lima papers reached the Iquitos Club today, and there I ran over in the late afternoon. Stock market doing well; threatened Mohammedan war; Russia and China peacefully arranging the Manchurian matter; the Athletics continuing to win and the Yankees to lose; the opening of the League of Nations meetings; disarmament plans between the U.S. and Britain developing. I invited Mr. and Mrs. Ker to dine with us, and later we ate "maggies" at their home.

Tues. Oct. 1. The *Dominica* is positively to sail tomorrow so this is a day of packing. (So was yesterday, for that matter, for all luggage not needed for drying the last-minute plants was sent to the boat yesterday). Mr. ^{Servant} Fleming, our host at San Antonio, came to town,

the Itaya having risen sufficiently to allow his motor boat to make the trip. He came to see his friend Boek off, who is taking the same boat as we.

Wed. Oct. 2. Up early, and took off the last press, all being dry but two sheets of an arid. These ~~will~~ we shall take with but "changing driers" on the Dominio won't be much of a job. The Kers and Mr. Kling came down to see us leave (about 11:30) on the "Tapae-?", a small launch taking us to the Dominio at the mouth of the Nanay. She sailed soon afterward, and we were on our way down the Amazon - a month's trip to New York were we going direct, seven days to Manaus. A stupid trip, probably, the things brightened up when we found a good library of English books. There are two passengers beside ourselves, a German, Boek, and an Englishman. It is an English boat, made over German trophy. Quite a comfortable way to travel down the

Amazon, a relief not to be on a wood-burher with its numerous stops for leña. Because of shallow water the boat anchored for the night, so many mosquitoes coming on that bars were necessary in the stateroom.

Thurs. Oct. 3. Raining hard. Finished "Huck Finn" and before starting another am writing in this journal. The two or three days - one does not know just when - we shall cross the line into Brazil, and the Peruvian part of the trip will be a thing of the past. Perhaps some general observations will be in order: I. From the standpoint of botanical collecting it has certainly been a success. A very large part of the 8500 numbers were found in regions rarely visited by botanists, certainly in regions not represented by collections in the U. S. Taking the principal areas in order of the time visited we have: (1). Rio Blanco. - The general region of the western slope of the

Andes readily accessible from Lima has of course been often visited. But many of the collectors have been their out-of-season, the dryness of those slopes for many months of the year leaving only a short time when collecting is prime. Apparently we were there at just the right time - the middle of April.

(2). Tarma. - The vegetation here is not very rich, at the best. Several plants bear the specific name "tarmensis" but these come, in most cases, from the Province of Tarma, not the capital city. It is far above tree-line, but the many herbs and low shrubs were in flower, and I think the *Salvias* and *Scrophs.*, among other things, will prove interesting.

(3). Mt. Jaantay and puna flora. - The day's trip to the glacier near Huancayo, Mt. Jaantay, netted us a great number of the curious little plants, characteristic of the region just below snow-line. Many of the things suggest Macbride's

Huancayo plants, but even if they are the same, it is interesting to have them from so far south. (4). Huanta-Apurimac. - So far as I know Weberbauer is the only botanist to work in this area, and I do not recall ever to have seen any of his plants from there. I suspect he made a hurried trip at the best. Doubtless we got many common things along the road, but surely Al's fine collections from Kuipitiriki and the orchids and other groups found at Aina are well worth having.

(5). Chanchamayo. - The month at La Merced and the Perene Colony was the longest time we spent in any one region. Opportunity was had for working very thoroughly, at altitudes from 800 to 1500 meters, and the Macbride (and probably Weberbauer) have collected at La Merced, I doubt if they amassed anything like the material we did. The four days' collecting at Huacapistana and Carpapata brought in

much material from the mid-slopes of the Andes. (6). Pichis Trail & Masisea. -

I find no record of any botanist collecting before in this region, those who have worked in the Chanchamayo apparently never having gone further north, and those from Tiquitos, like Jessmann and Uhl, never having gone above Masisea. Poeppig followed the more western valley of the Huallaga from Lima to Brazil. The vegetation of the Pichis Trail was so rich, changing with every kilometer, and the forests which we collected in on our extra-day stops along the route, presented such differing appearances that I believe on the whole this was our most valuable collecting. Certainly, including the work at Puerto Bermudez and Caluapana this would be so. (7). Tiquitos. - Until recent years this region has been comparatively unknown botanically. Uhl and Jessmann have made fair-sized collections here but few of their numbers

are to be found in the U. S. Our September collections along the Taya and at Mishuysen, added to the August ones made near Tiquitos, will certainly bring to American herbarium hundreds of species not represented. (8). Yurimaguas. - The forest here has a general resemblance to that about Tiquitos the plants are, for the most part, quite different. Al's trip to Balsapuerto, where the foothills of the Andes were reached, resulted in adding to the collections many plants not previously seen.

II. It is too early to judge of the success of the trip from the standpoint of cube investigations. ^{Because of} our failure to find flowers or fruit it surely cannot be called completely successful, tho, if from the large amount of material collected we are able to determine it with certainty, all ends are accomplished as far as finding out what the plant is. We know in what parts of Peru cube is cultivated; we have fairly reliable information

as to its cultivation in other parts. We know the manner of cultivation, habit, kind of soil preferred. We know of its abundance and of the amounts purchasable. We have a quantity of other information about other plants used as fish-poisons.

III. The cost of the trip has been much less than anticipated, due to the lower cost of living in Eastern Peru. Nearly everything is much less than in Colombia, the difference being particularly noticeable in the following items: Labor, river-steamers fare, excess baggage, lodging (this due to entertainment in such places as Iquitos, Tarma, and the Perene Colony), and kerosene.

IV. Fortunately hindsight is easier than foresight, and looking back on the trip I can see certain things I would not have done, or would have done differently, had I been able to foresee everything. (1). Plans in Washington. - It was unfortunate more time was not available to look up Peruvian and

Brazilian fish-poisons, and to have had D's root samples analyzed by Dr. Lewton.

With a clue to its being a legume of the *Lonchocarpus* relationship I could have studied these plants more fully and

have had a more comprehensive knowledge of the group for help in the field.

(2). Equipment. - A detailed consideration of this subject will be made later; but three things stand out: We should have had four stoves, not two; 500 additional "boards" should have been sent Iquitos as a reserve; the press-ends supplied as should have been rejected as too weak and strong ones substituted. (3). Personnel. - S. and I should have been alone on this trip. We certainly received little help from D. in the matter of general collections, and what he did in the way of curative investigation could easily have been done by us without much additional time or effort. To mix an unknown quantity (or, rather, one who, according to every indication, was our antithesis) with

two people who work so effectively together was unwise. D. should have gone to Brazil ^{Venezuela} or the Guianas, and there obtained information on fish-poisons, or we should have gone to one or more of those places while he came to Peru.

One of the secrets of maintaining health in the Tropics is the having of peace in mind continually, and this is impossible when people of such opposite temperaments are forced to live together intimately for several months. To say that a give-and-take policy and mutual consideration of the other will solve the problem is all very well, but sooner or later trouble will arise.

That S. and I have kept well and accomplished so much is due to the fact that by luck and by arrangement we have been alone a certain part of the trip. I could enlarge on this theme but what's the use? As I write, the dam has burst, and I doubt if all my tact and ingenuity can prevent a disagreeable trip down the Amazon, stay at Manaus,

and unfortunate results when we all get home. It was a hard situation, having him on the trip. Older than I, for many years, a schoolteacher and accustomed to ^{countryward} ~~order~~, and far more familiar with the Spanish language than I, he rather assumed the lead at the outset. For the first six weeks I neglected to assert myself, but when I found, ~~about~~ about June 1, that when anything went wrong, he would blame me, I took over everything, and ran things as they should be run. The Huanta trip was a huge mistake, but I agreed to it only because D. thought it so important. I felt we should not waste time in long travels to the south but concentrate in working the Iquitos region. Botanically the trip ^{Huanta} was a success but as far as furthering our ^{our} knowledge materially it amounted to little. Had we not gone to Huanta we could have carried out our original Tarapoto plan. As it was, I had all I could do to prevent D.

wasting our time in the Puerto Ocopa-
 Rio Tambo country in aimless
 investigations. Except for the Huanta trip,
 D. has done no real exploration work. In
 fact, he has had it pretty soft - many
 days at his old school at Huancayo;
 weeks in Lima; an air ride of $2\frac{1}{2}$ hours
 to cover a route we needed a month to
 complete, and that of the hardest of
 mule work; three weeks with a river-steam
 as a ~~base~~ home while he was taking to
 Balzapuerto and I was living in
 shacks on the ferrovia near Yarinayacu.
 In fact, the only thing he has done that
 savors of real work, since the Huanta trip
 in May, ~~has~~ was the few rides ^{and washes} ^{to get cube information,}
 he made to the San Juan region, on our
 arrival at Iquitos, and, later, the
 drying of roots in the sun at Iquitos.
 Meanwhile, he has been reading historical
 books, writing comments on them, preparing
 papers on the Tarma-Arica question, and
 typing ~~the accounts of~~ articles on various
 subjects for his local Tarma paper. Had

the success of the expedition been forecast in
 his mind, he would have offered to take a
 press and a boy and do some collecting.
 It was a thing I could not very well
 order him to do. The valuable material he
 collected on his trip to the Pongo, this probably
 only a small part of what might have been
 collected, shows what he could have
 done had he wished to devote time to the
 work.

(4). I should have arranged with Mr.
 Maxon as soon as airmail service was
 established between New York and Lima that
 all our letters should be sent by three
 airmail. Thus I should have been able
 to keep in touch better with Washington;
 should have known the progress made
 in the identification of our cube
 material, and have had quick replies
 to my requests for instructions.

V. The trip completed carried out, with
 certain exceptions, the ~~go~~ plans outlined
 in a general way before leaving because
 of the nature of the investigations to

be carried on the itinerary was sketched only roughly, details to be left to the necessities of the situation arising in the field. The trip was to take ^{not more than} eight months, including the time spent in travel ^{between} ~~from~~ ~~and to New York and~~ from and back to New York. Sailing on March 28 we were due back on or before Nov. 28. With a view to investigating the occurrence of cube in northeastern Peru and making general botanical collections ~~at~~ ⁱⁿ the regions visited, our plans called for a few days on the Pacific slope of the Andes; a week or so at Tarma (while D. was obtaining information from his agents in Huancayo); about a month in the Chanchamayo; a slow journey over the Richis Trail and down the river to Iquitos; sufficient time at Iquitos, where cube was ^{known} to occur in considerable quantities, to make a thorough exploration; then Yurimaguas, and the Tarapoto section. The nearly five weeks consumed in the Huancayo trip, already referred to, from about April 23 to

May 28, necessitated the elimination of part of the project, were we to return by Nov. 28. The plan of slow progress from the Chanchamayo to Iquitos was retained for the first portion half of the route, to Morisea, but from there on the regular steamer was taken instead of a chartered launch. Infrequent steamer service from Iquitos up river (we reached there Aug. 1 and could not leave till Aug. 17) further delayed us. The discovery that ^{regular} steamers for Para left Iquitos only on the 27th of each month meant that to do the Tarapoto trip we should have to wait for the Oct. 27 boat, and not get home till after Nov. 28 (much after should it develop the additional work must be done in Brazil). We reached Yurimaguas Aug. 22 and, perhaps foolishly, spent three weeks with that as a base, the character of the jungle about Yurimaguas and between that city and Babapunta indicating exceptionally good collecting. All plans were made for going to Tarapoto, five or six days of walking

distant, when I decided ~~it~~ it was not feasible to undertake this further work at this time. As I write now, I wonder if I made a mistake. We had had our hearts set on ~~the~~ historic Jarapoto region, and botanists back home were eager to have us make collections there. But I just had the feeling that the project was too big to tackle at the end of a long trip during which thousands of miles had been traversed. To have gone to Quintos direct from New York, via Para, and then penetrated to the Jarapoto-Moyabamba-Chachapoyas country would have been a pleasure. And our corrugated boards were so sound up that it would have been difficult to dry large collections speedily. Moreover, we learned certain things that made me judge that at least some work was necessary at Manaus and Para. Perhaps we should have gone to Jarapoto anyway. Maybe the "boards" would have

held out; perhaps I should have had a recrudescence of energy with the wonderful collecting there; perhaps the Museum would have agreed to my returning a month or six weeks late. Well, it's too late to change now!

Fri. Oct. 4. All day yesterday it rained, often in torrents. Frequently soundings were taken and once a launch was put out to take soundings ahead. Today is cloudy but without rain so far. Unusually cool for the Amazon, and some even have on blue suits. The books in the ship's library and those lent us by Mr. Besser, one of the passengers, have helped kill time. At 4 p.m. reached Latecia, the border town in Peru.

Officials came on and pooled around. Too late to cross the line and have the Brazilian inspection, so we remained anchored for the night.

Sat. Oct. 5. At 7:30 a.m. we had crossed the boundary into Brazil, and were anchored off the settlement of Tabatinga.

Just a few houses, and a "fort", a stone blockhouse. The boats probably don't come regularly oftener than once a month, the officials of course couldn't be hurried, so it was nearly 10 before we proceeded on our way down the river. Frequent soundings necessary. Many islands, and what look like mouths of rivers, tho they may be only the ~~ends~~ ends of channels around the islands. Fine weather.

About noon passed thru the shallow stretch near Esperanza, another Brazilian Customs town, where a stay of several hours was made.

Sun. Oct. 6 - Wed. Oct. 9. These days are all alike, just steaming down the Amazon, the river all the time growing wider and straighter. The weather has been surprisingly cool; once or twice heavy winds and rains have come up, reminding one of squalls at sea. Habitations are few; the forest does not look as dense or as interesting as farther up, tho possibly this is because

the banks usually are so far from the ships. No signs of life - no crocodiles, no monkeys; no birds. Occasionally a butterfly or a flying grasshopper comes on board. The last two nights we have run all night.

Thurs. Oct. 10. Today we expect to reach Manaus, and then for Customs and baggage worries! Shortly after noon had one of the biggest thrills of the trip, the passing from the brown waters of the Amazon into the black waters of the Rio Negro. The line of demarcation is very distinct, and the two run side by side, as far as one can see, beyond the junction. Went up R. Negro about 7 miles and anchored off Manaus about 3 pm. A big city with fine buildings of varied architecture and color. Looked like a big seaport, among the ships docked there being the big "Hildebrandt" for Liverpool, "Swimburn" for N.Y., "Bepentley" for Rio. Customs and doctor took some time but no baggage passed till tomorrow. After supper on board we then went

ashore, registered at Grand Hotel (proprietor knows Bill Mann, Macgregor, Tate, Rice, etc.) Saw a very U.S. movie, a baseball game, went with Boek & Bessey, but we three were among the few in the audience who could understand it. Then an auto ride to Flores, a "joint", dance hall, player piano, women, and much liquor. We stayed only a short time, and left B.O.B. to finish out the evening.

Fri. Oct. 11. Manaus is quite a town - some 80,000 people, good streetcar service, well-paved streets, many autos, modern docks, good roads radiating out into the country. Rushed around in morning to see about baggage, but not till p.m. that it went thru the Customs. Officials were all right, and speeded things along, once they got started. Called on the manager of the street-car company, E.B. Kirk, an American. Very pleasant and offered us his launch to go up Rio Negro. Also called on Mr. Georg Huebner, to whom we had a letter from Mr. Klug. He is a German, long

resident here, an orchid collector. Has a place up and across the river, and we shall go there Monday. Brazilian money is strange; a milreis (1000 reis) = about 13¢. Coins run from 100 reis, 200r, 400r, 500r 1 milreis, 2 MR, and bills up to 1000 MR.

Drew money at bank (Mr. Blake, Director). D. was busy all day with the transfer of his voluminous baggage from the "Dominie" to the "Hildebrandt". Absolutely one of the finest dinners I ever had was given by Boek tonight - his birthday.

The Captain, Chief Engineer of the "Dominie", Bessey, Al, and I were his guests. Boek surely knew how to order, and just the right wines with each course - champagne cocktail to start off and champagne toward end. Afterwards we two broke away and visited D. on the "Hildebrandt", seeing a prize-fight by its crew. This is a fine steamer, the queen of the Boeth line boats. Later I joined the rest of the birthday party, not getting in till 3:30 am., my latest on the whole trip.

Sat. Oct. 12. Saw the Hildebrandt sail in Am., carrying all our ^{traveling} companions ~~for~~ the "Dominic". Mr. Kirk drove us around to the boat we are to use, showed us his larger launch, being remodeled, which we travelled to the Barbados in. He is an enthusiastic yachtsman. Had luncheon at his house, another wonderful meal, chicken, pork, the best macaroni I have ever eaten, and a sweet pudding. Lots of wine. Then we read Sunday "Times" up to Sept. 1. Mr. Kirk took us later to the English Club and got us cards. They have a country club called The Bosques - tennis and swimming, but I never got out to it.

Sun. Oct. 13. ~~Mr. Huebner took us to the Agricultural~~ Mr. Huebner dined with us, also Miss (Dr.) Sneathlage, a Swiss entomologist, an extensive traveler in Brazil (we had just read about her in the April 1926 Nat'l Geographic). She is a charming woman. Formerly was director of Goeldi Museum; now at

Mensen at Rio. After dinner we all called on Dr. Adolph Ducke, the leading Brazilian botanist, to see whom we had planned to make a special trip to Rio. Luckily he arrived today ~~as~~ on his way up the Rio Negro. He must be 7 feet tall - a very clever botanist who specializes in the rarer trees.

Sun. Oct. 13. Mr. Huebner took us to the Agricultural Experiment Station to find out if any "timbos" was growing there. There was none but ~~there~~ were many interesting species of *Hevea* and *Theobroma*. Collected about 25 numbers, our first Brazilian collecting. Dr. Ducke and Mr. Geisser, the manager of Berringer ~~House~~ Co., were there.

Mon. Oct. 14. With Mr. Boy, a friend of Huebner's, as a guide, we went in Mr. Kirk's launch across the river on our first timbo-chasing. The Rio Negro is several miles wide here. At the second farm we enquired at we

got a big kick from seeing two plants of "timbo legitimo", our old Cube A, of Peru. The plants had been set out on the farm and were apparently about a year old. No flowers or fruit, nor could we get any information about them. Growing abundantly on this farm was another species of *Loucheocarpus* (*L. rariflorus*) a true vine, and it had flowers and fruit. Then we went to Quebuer's ranch, Uypiranga; fine cement house; had lunch, saw "timbo legitimo" and the same *Loucheocarpus* seen earlier in the day. Then went upstream as far as the Japanese Colony, formerly a prison; turning back we stopped at a place near the beginning of a channel and saw thousands of plants of a *Loucheocarpus* (*L. negrensis*). The flowers are larger and the fruit longer than in *L. rariflorus*. Made one other stop on the way back and here found *Derris negrensis*, the genus being distinguished from *Loucheocarpus* by

having winged fruit. Crossing the river was quite exciting as the waves were very high. Got well soaked and it felt good after the intense heat of the day.

Tues. Oct. 15. While Al put in yesterday's plants, I went out about 5 Km. beyond Flores by auto, and walked back to Flores. Whenever the road would dip down to swampy land the collecting was good, but the edge of the woods at the higher parts of the road were punk. In the swamps got *Xyris*, *Paspalum*, *Utricularia*, *Mapanea* (?), etc. In the evening we called on Dr. Ducho with our specimens of "barbaco", or "timbo" as it is called in Brazil. He at once said Cube A was not *Loucheocarpus nicon*, as we had thought, but he did not recognize what species it was in the absence of flowers or fruit. So we are just about where we were before!

Wed. Oct. 16. In the afternoon we went by auto about 5 km. beyond Villa Municipal. On the whole the collecting was poor. This near vicinity of Manaus is second growth vegetation, and at the end of this very dry season there is little in flower. Collected only two packages and put them in at the end of the afternoon so that tomorrow could be free.

Thurs. Oct. 17. Thinking over that plantation across the river where so much *Lonchocarpus regensis* was growing, we decided we should have some roots of it. So Al went over in Mr. Kirk's canoe, and dug up a lot. Reported there were high seas on the way back. I had my most interesting collecting in Brazil to date - a trip to the falls of Irumá with Dr. Duché. It was a privilege to be out with the man who knows the Amazonian trees better than anyone living. He had along his expert boy from Rio and a boy

for me. Both rounded shinning up trees over 100 feet high, or if they could not get specimens this way, they would shoot branches off. And of course sometimes they would cut the tree down. We left the auto about 20 km. beyond Ilheus, then walked the remaining 10 km. to the falls. The road ran thru virgin forest, with great trees 100-150 feet high. Duché uses a field glass, and decides whether the flowers, high up, are worth collecting. It was fun to have him hand me a specimen, and say it had first been collected by Spruce, and not found again till ~~the~~ (Duché) had located this tree; or to show me a ~~specie~~ belonging to a new genus of Kuhlmannia, or a new *Minorsaceae* described by himself. ~~It~~ The falls are beautiful, sort of a horseshoe, tho only a small stream flows over the brink during the dry season. There were two species of *Paepalanthus*, an *Utricularia*, a blue *Utricularia*

suggesting *U. resupinate* of the New Jersey pine barrens, and an interesting Gentianaceous plant. From the falls we swung ~~also~~ around along a wood trail for several Km. back to the Flores road, where a car met us at 4:30 pm. Collected about 100 numbers, all good things. Found quantities of *Loucheocarpus rariflorus* and a sterile *Loucheocarpus* strongly resembling our Cube A, but with ~~grasses~~ slender rachises and petiolules.

Fri. Oct. 18. To our disappointment Lampert & Holt had not received a reply to their wire to Para asking permission for us to take the freighter "Swinkburn" to Para. So we had to arrange for the Amazon Navigation Company's ship, the "Distrito Federal" leaving this evening. The morning was given over to putting in yesterday's plants and the afternoon to packing, paying bills, etc. We are leaving Manaus

rather sooner than we had expected but this makes us enjoy our stay here all the more. After many days in a ~~place~~ South American city the place gets stale and you feel you are outliving your welcome. So we left Manaus at 9 pm. on ~~the~~ ^a good-sized river steamer, watching the bright lights fade away, with pleasant thoughts of the fine town 400 miles from the mouth of the Amazon.

Sat. Oct. 19. This boat is quite good, much larger, ~~than~~ than the upper Amazon boats. Breakfast as usual only bread and coffee, but much quite ample. Had a hard time drying driers as the wind was terrific. Finally put the presses in the "hot room" around the two smokestacks. For reading matter we have four books lent by Mr. Kirk. About 11 am. stopped for wood, not starting again till 3 pm. After a half hour's run we stopped for more wood, waiting here ~~a~~ 1 1/2 hours; so we move

or very slowly during the daytime, making good time only at night.

Sun. Oct. 20. At daybreak stopped at a large town. Don't know the name of it. No map on board nor could we buy one in Manaus. What a terrible wind there is all the time! Certainly the hot sultry trip down the Amazon is all splendour! At a wood stop early in the afternoon I inquired about "timbo". Not grown in these parts. Gurua is our last chance, apparently. About 8 p.m. reached Obidos, the second largest town (I think) which we stop at between Manaus and Para. A pretty sight brilliantly lighted. A full moon was arising just about then. About midnight took on a lot of cattle. Rather an exciting task as the ~~boat~~ steamer could not get anywhere near the shore because of low water; the animals were chased into the shallow water, one at a

time the long rope attached to their heads gradually tightened so they were brought alongside a row boat, then forced into deeper water, in which they swam toward the lighted stick, and were hauled up.

Sometimes they would start swimming downstream, carrying the row boat with them.

Mon. Oct. 21. More of the same - good time while moving but long stops for wood, heavy winds, cool. After lunch went ashore at a wood stop on a fruitless timbo chase, letting myself be led by a drunk kid fully 2 km. inland to see "urucu", which turned out to be *Bixa orellana* instead of "timbo urucu", (*Tournefortia bicolor*). Coming back alone got on the wrong trail and had a few minutes of unpleasant feelings that I would miss the boat.

At 4:30 reached Santarem, at which

of R. Trapejos, the largest town en route. As at most of the other towns the steamer could not tie up, so transfers had to be made by tenders. Many went ashore and I am damn sorry I did not. Looked like an interesting town. We are acting like a couple of homesick fools, impatient of every stop, refusing to see anything of the interesting country we pass thru, just sulking on the boat.

Tues. Oct. 22. I shall take advantage of the absence of anything new to write about to mention a few incidents of recent happening overlooked in writing earlier. (1). The peculiarities of dress, noticed among Peruvians but accentuated in Brazil, give me a mixed feeling of irritation and humor. The most sacred garb is the Coat. One is respectable only if he has on a coat; one is a low-down bum, a humble peon, if he

wears only a shirt. To be a Coat ~~is~~ a thing need only to be cut in the general style of a coat - that is, a row of rather large buttons and a row of buttonholes down the middle. It may have a V-shaped neck or a straight one. It may be a pajama top. Sometimes it is difficult to say when it is a coat and when a shirt; guess it depends on whether it hangs over the trousers or is tucked in. In going into the woods at Manaus I naturally didn't wear a coat; off in auto which took me out but on the streetcar coming back the conductor would inform me that people without coats had to ride on the back platform with the peons, cargaderos, etc. The first time I argued a bit and he finally let it slide. But ^{the} arguing was so tiresome I decided to follow orders next time. When Al and I were coming back once and were told

to beat it to the back platform, we did so, then tendered the Conductor a 100 Milreis note, saying we were rich gentlemen and had nothing small. Spoke to Mr. Kirk, humorously, about this fool rule, and he said he was recently chased back by one of his own conductors. A close second to a coat is a hat, tho here there is perhaps some justification because of the intense heat of the sun at Manaus. When we would go about bareheaded, people would talk to us about it. Going without ties also seems to arouse the Manauasians. God, these people are as bad as the English about dress. So far this is the only thing that makes me feel glad to be a resident of the State. On board this ship people go around in pajamas nearly all day long, but look at us if ever ~~we~~ show up at

meals without coats. (2). There seems to be two complete soccer teams on board. At wood stops they get off and have a game. A rather scrummy bunch, several of negroid complex.

~~Wed. Oct. 23.~~ Today we are making pretty good time, with comparatively short stops for wood. The three rather large presses we brought on board are drying very well in the "hot room". Finished "Heirs Apparent," the third book loaned by Mr. Kirk, and, as the fourth one is a childish book and impossible to read, I now have nothing more to read. Late at night passed Turupá, the place where Diebe found "turbo-legitimus" (*L. meon*) in flower and fruit, and at which we had hoped to stop. So we shall have to come back from Para, unless we can find it nearer.

~~Thurs. Oct. 24~~

Wed. Oct. 23. Stopped at 10 am. for wood, and I collected about 25 numbers. Glad to have this chance as the habitat is quite different from Manaus. We are now in a channel from the main Amazon to the Atlantic (or, rather, to the Rio Pará), a tidal channel and the forest a wet jungle. The trees bear many epiphytes, ferns, aroids, and bromeliads, reminding me most of the Puerto Arturo vegetation. Still no news about "timbo" here.

Thurs. Oct. 24. Today we are due to reach Pará, but God knows whether we shall or not - such delays! Have written the following on board: cards to H. L. E., Miss Culver, Maude Gray, ~~H. F. L.~~ Fairy; letters to Strauss & Mott. Reached Pará about 3:30 pm; no delay at Customs. Called at Consulate & S.O., getting mail. Staying at Grande Hotel, a pretentious hotel, with elevator, waiters in black & white, good meals.

Fri. Oct. 25 - Fri. Nov. 15. These three weeks spent waiting for a boat for N.Y. A rather trying end to the trip, for Pará is too large a city for a good collecting headquarters, nor could we leave for any length of time as one could never get reliable news as to boats. Many days were so uneventful that a daily record of our doings is not worth while. However, to mention a few things:

Pará as a city. - 200,000 population; many street-car lines, mangos the popular shade tree; fish-market, with numerous sailing boats alongside, interesting; exporting, importing, & shipping biggest industries.

Goeldi Museum. Located in Zoological Park. The Zoo is well kept up, many birds in cages, some monkeys & other animals, and snakes. A part of trees in the park bear labels. There is no regular botanist at the Herbarium now, the appropriation which had permitted Huber & Ducke to do their fine work being cut off. The herbarium is in large tin insect-proof boxes, with plenty of camphor scattered within, and no sign of

insects. Unfortunately many of the boxes are not labeled, and the contents are somewhat mixed up. The herbarium is chiefly of Huber, Ducke, Ule (including Peru), and Bahr collections. We photographed many types. M. Chermont is librarian and in charge of herbarium.

Rejane Carnival. - This was going on when we arrived, a big street fair, with many grounds, gambling games, bright lights, and movies.

Oct. 25.

Cube Search. - Sr. Alfredo Mesquita, the manager of the Standard Oil Co. here, arranged a trip out along the road to Pinheiro to get "timbo". Picked up various people en route in auto, and finally a native showed us "timbo". There were three kinds, Cibadum aurinamense (fruit used), Cracca toxicaria, and Cracca (probably nitens?). The man knew of timbo legitimo, and promised to bring some to us. Oct. 26. This man brought a package to the hotel, and it gave us a big kick to unroll it. The plant was our old Cube A. We arranged to go out to the spot and get roots. Oct 29. Went out to the

place, which is southeast of the point known as Japerá, on the Pinheiro road. Plants had apparently been planted, though they were in dense woods. The first seen had by far the largest leaflets of any we had ever found, tho clearly the same species. Farther eastward we found 30 or 40 plants, and dug some 25 Kg. of roots.

Nov. 1. Berringer & Co., to whom we had a letter from their Manaus agents, wired their people at Breves to bring specimens of "timbo" to the boat Jupiter. Al took this Oct. 31, and was given the specimen (leaves or a few roots, no fls. seen). Proved to be Cube A. Nov. 3. At Gurupá, the locality for "timbo urucu" (Fouquieria urucu), discussed by Ducke, Al was taken to the very plant from which Ducke collected specimens. Apparently is not our Cube A. He also collected Cube A, there known as "timbo". The plant has the main stem with many lateral branches all way to top; in Cube A there is a main stem, ± leafy, branching only near top. Leaves of L. urucu smaller and not long-acuminate.

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General Collecting.

Oct. 25. Al and I got a few things in addition to timbo along Pinheiro road.

Oct. 27. I took the Souza carline to end of route, walking on to Entracumeto, a station ^{on} the Bragança R.R., getting about 65 numbers. Probably common things mostly, but nearly all were new to me.

Oct. 29. Al and I got about 20 numbers in the dense forest south of Japará and Pinheiro, while on the creek hunt.

Nov. 2. I took Santa Izabel carline out to end, but found everything cleared. Got only a few numbers in thickets.

Nov. 3-5. The U. S. Consul, Drew, recommended the hotel Chapen Virado, on the Ilhados Mosqueiro, some 25 miles below Pará, as a good place to loaf and probably to collect. Left Pará beam. Nov. 3, arrived at Mosqueiro (by excursion boat; fare 1 MR) at 8:30. Took bus to hotel, and by 9 was walking along the wonderful sandy beach the fringes the whole

95
island. From the start collecting was good. In pm. walked back along track, cutting over to ocean west of the Chapen. Nov. 4 ~~to end of the~~ road (with an Englishman, West) the 5 miles to Mosqueiro, along the road, returning by the shore. In the pm. we went east along the beach a long distance. Swimming good. Large number of leguminose trees in flower. Altogether got 200 numbers. Returned beam Nov. 5.

Nov. 1- Nov. 5. Al went back up the river to Gurupá, to look up "timbo". Collected many other things in the dense forest about Gurupá.

Nov. 7. I went by auto a short distance along the Pinheiro road, to real muddy tidal swamp, the only habitat of this bird visited this trip. Got only a few numbers, special things I wanted, as we did not wish to accumulate much fresh stuff.

Nov. 8-11. Al and I went Nov. 8 at 4 pm. to Mosqueiro, this time more of a good

joyous loafing trip than a botanical expedition. Just laid around naked in the sandy, swimming, ~~and~~ basking the breakers, and getting tanned. A fine end to a long trip. We photosted a few of the things collected on my earlier trip, and got about 25 additional notes. From misinformation we went to Moqueiros for a boat on Nov. 11. pm. As there was none we got on a sailboat and sailed back to Pinheiro (halfway to Pará), then took bus in. This added another mode of conveyance to our long list.

Nov. 15. After four days of the most aggravating hanging around ~~the~~ ~~Higbo~~ we finally boarded the "Higbo", of the American Brazil line, a shipping Board boat, and dry! Warned of this I laid in a stock and I hope it will last to the States. It is a boat of 3000 tons, but is very lightly loaded, and pitches and rolls in the calmest

of seas. There are 6 other passengers, 4 women among them. We have the cooks' rooms, quite comfortable. The Captain, a New York State, Johnson, is very intelligent. Meals are exceptionally good. As the labels for our collections up to Aug. 15 ~~are~~ were extracted from the mails the day before leaving, we have these to work upon, and we hope the at least 14 day trip won't go too slowly.

At mouth of Rio Para morning of 16th and set off pilot. At 3:30 pm. crossed the Equator, taking photos. Nov. 17 and 18 quite rough and much rain, but from then on the finest weather possible, the sea very blue and no motion to the ship. Our routine is this: breakfast 7:30 to 8, label-writing (with beer) to 11 am; lunch 12-12:30; label-writing till tired of it; reading on deck; dinner 6 pm; all at pinochle and bridge from 7 pm. on; I reading till 9, and then to bed. Capt. Johnson a good egg, and he and I discuss affairs between 7 and 8 each evening.

Nov. 23 sent radios to family, Mary, and Hopkins. Nov. 25 finished writing labels.

Miscellaneous Notes

1. For Financial Statement see back of this book.
2. The following are the principal botanical groups represented in our collection:

Lower cryptogams	448
Ferns 927	927
Araceae 26	264
Gramineae	209
Orchid	335
Piperaceae	531
Loranthaceae	48
Mimosaesae } Cesalpiniaceae }	179
Fabaceae 252	340
"Cube A" 71	
Other "Cube" 17	
Sapindaceae	83
Passifloraceae	124
Melastomaceae	395
Ericaceae } Vacciniaceae }	47
Cordia + Tournefortia	64
Labiatae	64
Solanaceae	250
Scrophulariaceae	121
Gesneriaceae	144
	4573

	4573
Alcanthaceae	222
Rubiaceae	574
Lobeliaceae	59
Compositae	423
Total	5851
or 63% of the total collection of	
<u>9167 numbers.</u>	

Number days in field	Aver. pl. per da.
Pern 175 ¹⁷³ 175	49
Brazil 45 ⁴³ 45	15

3. Fish-poisons collected:

Following numbers are "Cube A"

22913	27362	29279	30585
23053	369	280	608
878	380	529	
26200	425	668	
369	427	752	
490	504	759	
494	565	816	
501	566	917	
527	994	957	
597	997	30025	
612	28008	026	
692	158	028	
712	211	038	
837	255	041	
841	300	074	
886	325	081	
893	458	110	
895	586	137	
945	621	177	
27096	812	191	
137	29061	192	
159	066	241	
278	110	576	

Leguminose Fish-poisons, other than "Cube A"

22300	25134	27092	30233
558	489	503	234
23189	719	28459	
645	731	28811	
800	26608	29677	

Non-Leguminose Fish-poisons

22014	25401	27837
25376	26834	30232

4. Itinerary and collections:

Date	Place	Means of travel
From	To	
Mar. 28 - Apr. 9	N.Y. Lima	Steamer
Apr. 9 - " 14	—	—
Apr. 15 - " 17	Lima Rio Blanco	R.R.
17	Rio Blanco - Oroya	RR
17	Oroya - Tarma	Auto
18 - 23	—	—
24	Tarma - Concepción	Auto
25	—	—
25	Concepción - Huancayo	Auto
26 - 28	—	—
29	Huancayo - La Mejorada	R.R.
30	La Mejorada - Huanta	Auto
May 1 - 2	Huanta	
3 - 7	Huanta - Aina	Mule
8 - 16 (K)	—	—
8 - 9 (S + D)	Aina - Kimpitiriki	Mule
10 - 12	"	—
13 - 14	Kimpitiriki - Aina	Mule
17 - 19	Aina - Huanta	Mule
20 - 22	—	—
23 {	Huanta - La Mejorada	Auto
	La Mejorada - Huancayo	R.R.

Miles of travel approx	No. Days	No. plants collected en route	No. with first base coll. from base
3363	12	20	
—	5	10	10 Lima
75	1	5	
—	2	25	235 Rio Blanco
55	1/2	2	
30			
—	6	17	17 Tarma
55	1	30 24	
—	1	37	37 Concepción
20	1	1	
—			
—	2	130	130 Huancayo
46*	1	35	
90	1/2	3	
—	2		1 Huanta
45	5	33	
—	9	375	375 Aina
22	(2)	58	
—	(3)	208	208 Kimpitiriki
22	(2)	41	
45	(3)	138	
—	3	11	11 Huanta
90	1	2	
46			

* 10 mi. on foot because of wreck

665 1182

From	To	From	To	Means of Travel	Miles of travel	No Days	No pl. coll. en route	No pl. coll. at base	With base
May 24 - May 26	—	—	—	—	—	3	656	25	Huancayo
27	Huancayo - Tarma	—	—	Auto	75	1	2	—	
28	Tarma - La Merced	—	—	Auto	48	1	4	—	
29 - June 13	—	—	—	—	—	16	—	1100	La Merced
June 5 & June 8	La Merced - Carapata & ret.	—	—	Auto	56	(1)	}	655	Huacapistana & Carapata
—		—	—	—	—	(3)		432	
June 14 - June 27	—	—	—	—	—	14	—	514	Colonia Perené
28 - July 8	Pichis Trail	—	—	Mule	125 194	7	337	—	
—		—	—	—	—	3 1/2	—	464	Yapas, Encinas, San Mateo, Sta. Rosa
July 9 - July 12	—	—	—	—	—	4	—	179	Pto. Yessup
July 13	Pto. Yessup - Pto. Bermudez	—	—	Canoe	13 20	1	—	—	
14 - July 17	—	—	—	—	—	4	—	284	Pto. Bermudez
18 - " 19	Pto. Bermudez - Caluapana	—	—	Canoe	25	2	24	—	
20 - " 21	Caluapana	—	—	—	—	2	—	113	Caluapana
22 - " 25	Caluapana - Masisea	—	—	Harvey Launch	250	2 1/2	12	—	
25	Masisea —	—	—	—	—	1/2	—	32	Masisea
26 - July 31	Masisea - Iquitos	—	—	Steamer	744	6	19	—	
Aug. 1 - Aug. 17	—	—	—	—	—	17	—	619	Iquitos
18 - " 22	Iquitos - Yurimaguas	—	—	Steamer	450	4 1/2	35	—	
22 - Sept. 9	—	—	—	—	—	18 1/2	—	971	Yurimaguas
26 - Sept. 1 (acs)	Yurimaguas - Balsapuerto & ret.	—	—	Foot	105	(5)	}	608	
—		—	—	—	—	(2)		—	Balsapuerto
Sept. 10 - " 13	Yurimaguas - Iquitos	—	—	Steamer	450 744	3	28 26	—	
							1115	6523	

		Means of travel
Aug. 20 - Sept. 8 (W.J.D.)	Iquitos - Masserich - Yurimagua	Steamer
Sept. 14 - Oct. 1	—	—
Oct. 2 - " 11	Iquitos - Manáos	Steamer
" 12 - " 17	—	—
" 18 - " 24	Manáos - Pará	Steamer
" 25 - Nov. 15	—	—
Nov. 1 - " 5 (asc)	Pará - Gurupá or R.R.	Steamer
" 16 - " 29	Pará - New York	Steamer

Mileage Ocean steam	6163
By ^{miles} steamer	5000
" launch	250
" canoe	38
" mule	259
On foot	105*
By auto	464
" R.R.	222
Total	12501

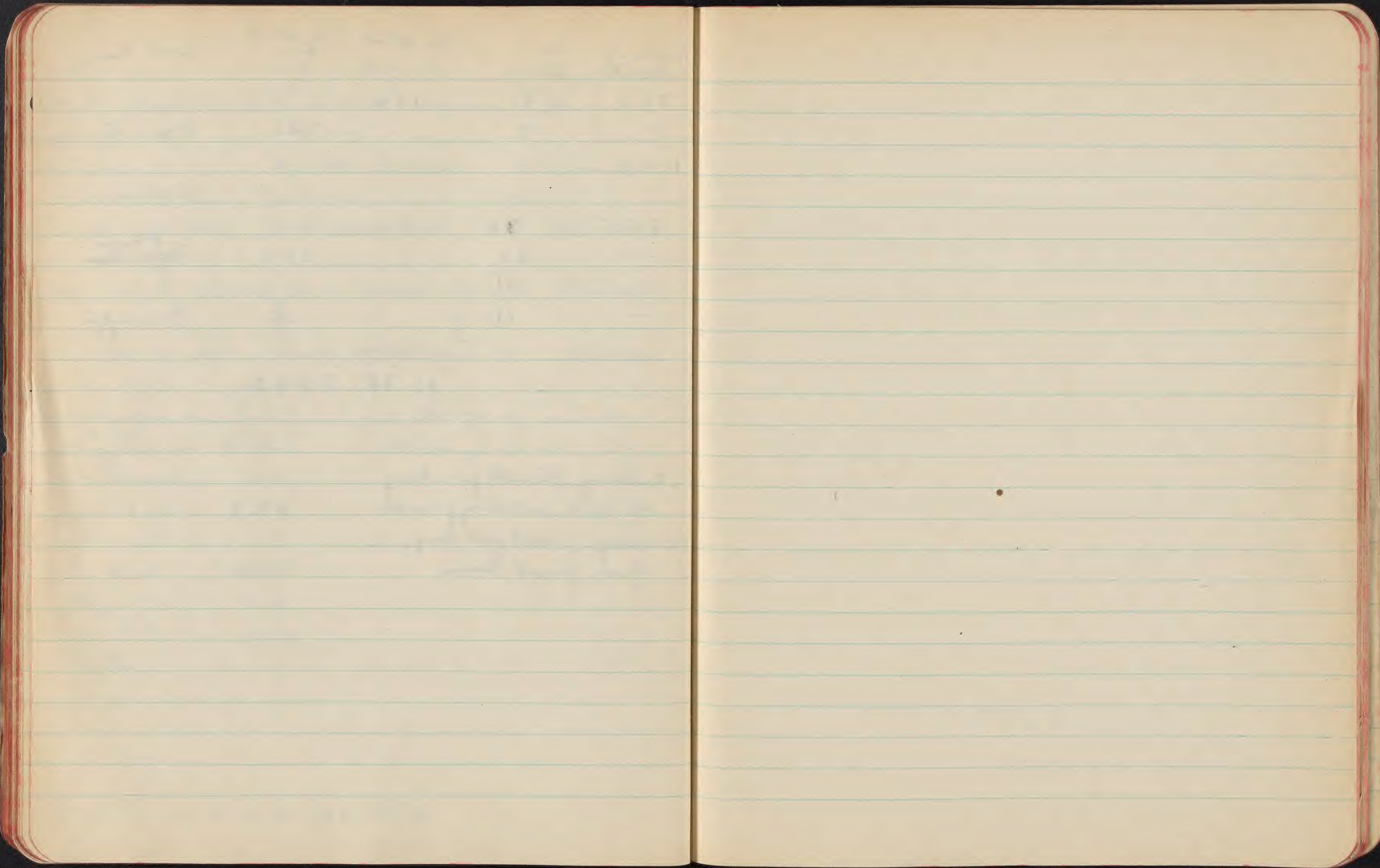
Days of Travel	
Collecting impossible	34
" possible	46
	<u>77</u>
Days with budgets.	170
	146
	<u>158</u>

* Including only direct place to place travel

miles of travel	no. Days	no. plants en route	no. plants from base	with base
753	(19)	115 134	6528	
—	17		720	Iquitos
1248	9		205	Manáos
855	26	26		
—	22		384	Pará Iquitos
500	(4)			
—	(1)		50	Gurupá
2800	14	2800		

1275 7892
7892
9167

Average plants per day
en route, collecting possible 27.7
Average plant per day
from fixed base 54.0



Transportation

4/9 Taxi	1.00 ✓	4/26 Tolls	179.15 ✓ 1.00
4/10 "	5.70 ✓	4/24 Fare T-Comp ⁽²⁾	✓ 60.00
4/11 "	3.50 ✓	4/27 Tolls	✓ 1.00
4/12 "	2.70 ✓	4/29 "	✓ 1.00
4/13 "	1.50 ✓	Fare H-Mej ⁽³⁻¹⁾	✓ 16.90
4/14 "	.50 ✓	4/30 " M-Hunt ⁽⁴⁾	✓ 32.00
Fare (Callao)	.80 ✓	Tolls	✓ 6.00
2 - (Callao - Puyo) 37.50 ✓		<u>April</u>	<u>297.05</u>
1 - (Puyo -) 18.25 ✓		5/1 Fares	2.50
Chair rent (- Puyo) 26.90 ✓		5/1 Mule rent ^{H-Mej}	22.00
4/15 Fare (S. Mateo) 5.20 ✓		5/2 " equip ^H	69.40
4/17 " (Puyo - Ima) 12.50 ✓		Pasto	1.00
4/13 Taxi	.50 ✓	5/3 "	1.50
4/14 "	.50 ✓	5/16 Mule rent	40.00
4/15 Fare ^{for post}	8.60 ✓	Pasto	.50
Taxi	.50 ✓	5/15 "	.40
4/19 Fare J. - S. Mateo ⁽¹⁾	6.00 ✓	5/17 "	.50
4/20 - C-Mej ⁽⁶⁾	1.50 ✓	5/18 "	.80
4/23 Taxi	1.00 ✓	5/22 Rent sup. saddle ^(Panton)	20.00
4/24 Rent to S. Sen ⁽¹⁾	1.00 ✓	" " (Vega)	4.00
4/25 " C-Comp ⁽³⁾	4.00 ✓	5/23 Fare H-Mej ⁽⁴⁾	28.00
Fare H-Taxi for bag.	20.00 ✓	" Mej - H ⁽³⁻¹⁾	16.90
Fare C-H (3)	12.00 ✓	5/25 Tolls	1.00
4/26 Pasto H-Mej H.	8.00 ✓	5/26 "	1.00
	<u>179.15</u>		<u>214.50</u>

Transportation

5/21 Tolls	214.50	6/28 Mule-o-arrived ^{Pickup}	50.50
Fare H- ^{(2) May}	1.00	6/28 Mule-o-arrived ^{Pickup}	570.00
5/28 " T-L-M. ^{2 May}	60.00	6/5 Auto (H-P-C)	3.00
Tolls	25.00	6/9 " (H-James)	10.00
5/31 Auto	1.25	6/10 " (J-Or.)	10.00
5/31 Auto	8.00	6/11 Taxi (H-James)	2.50
5/31 Parts	4.0	6/12 " "	2.00
5/4 " "	.40	6/28 " "	2.00
5/6 " "	.20	June	650.00
5/9 " "	.30	7/2 Extra mile out	40.00
5/24 Auto (H-P-C)	3.50	7/4 Parts	1.50
Fare (H-P-C)	1.10	7/6 Ferry	.20
Auto (H-P-C)	.50	7/9 Extra on bus pay	10.00
5/26 Auto (H-P-C)	10.00	7/13 Car seat	40.00
5/27 Taxi	1.00	7/16 Ferry	.20
5/30 " "	3.00	7/18 Car seat	60.00
May	330.15	7/20 Car seat	208.80
6/1 Auto	1.50	7/26 1-2 Mules - H	
6/3 " "	1.00	7/5 Carfare	.80
6/4 " "	1.00	7/8 Taxi	.90
6/7 " (H-P-C)	1.50	Air fare 8 H-Mules.	400.00
6/8 " (H-P-C)	3.00	7/19 Auto - Callao	1.00
6/9 " (H-P-C)	1.00	7/12 " "	.50
6/14 " (H-P-C)	16.00	Carfare	.80
6/24 " (H-P-C)	25.00	7/16 " "	.40
	50.50	Taxi	.40
			765.80

7/11 Carfare	765.80	9/16 Gas for launch	58.90
Taxi	.40	Oil	✓ 22.00
July	766.70	Auto (2g)	✓ 10.00
8/5 Auto (2g)	12.00	9/19 Engine for boat	51.00
8/7 " "	3.50	9/22 Mule in	30.00
Carfare	.20	9/25 Fare (2 7g - H-Mule)	✓ 847.00
8/8 Auto	3.00	9/27 Carfare	✓ .50
8/9 " (2g)	15.00	9/9 Fare "Elija"	✓ 100.00
9/11 " "	3.00	9/9 Carfare	✓ .25
9/12 Fare 7g - (2')	51.20	Sept.	1127.65
9/13 " " (12)	12.70	April 297.05	
9/16 Car seat	1.00	May 330.15	
9/25 " "	1.20	June 650.00	
9/28 Auto	5.00	July 766.70	
9/3 " "	5.00	Aug. 129.80	
House	11.00	Sept. 1127.65	
9/6 " "	3.00	3301.35	
9/10 " "	3.00	27.00	
Aug	129.80	3328.35	
9/5 Carfare	✓ 3.00		
Ferry	✓ .10		
9/1 Carfare	✓ 1.30		
9/11 Fare 7g - (3-1)	✓ 54.50		
	58.90		

Baggage Transportation

4/12	Callao landing	✓ 50.00	4/6 Huanc. - Lm	3.60
4/14	" - Oraya	✓ 30.75	4/7 " - CP	1.50
4/15	Lima - "	✓ 2.60	4/8 CP - Lm	4.50
4/17	To station stamp	✓ 6.00	4/6 Huanc. - Lm	1.50
4/17	" "	✓ 2.20	June	11.10
4/18	R. Huanc. - Oraya	✓ 6.00	7/19 Calump.	3.50
4/18	Oraya - Tarma	✓ 25.00	7/26 Calump. - Tg	32.00
4/18	To house, ~	✓ 3.00	July	35.50
4/14	To station Lima	✓ .50	8/1 Tarma - Lm	1.66
4/16	Lima - R. H.	✓ .80	9 quito	.40
4/16	R. H. - Or.	✓ 1.00	8/6 "	5.00
4/18	Tarma	✓ 2.20	8/17 "	1.50
4/20	Huanc. - Mej.	✓ 5.50	8/22 Lm.	3.30
4/24	Huanc.	✓ 3.00	Aug	11.86
4/29	Huanc. - Mej.	✓ 2.90		
4/30	Mej. - Huanc.	✓ 28.00	9/1 Lm.	.50
April		175.00	9/5 Sta Rosa trip	18.00
5/23	Huanc. - Mej.	32.50	9/10 Lm.	3.30
May - Huanc.		8.80	9/13 Tiquitos	5.00
Huanc.		3.00	9/14 "	.90
5/25	"	1.00	9/17 " Taya	3.60
May		45.30	9/19 S. Antonio	1.20
			9/22 Tiquitos	4.20
			9/28 "	1.50
				38.20

Baggage Transportation

9/30 Tiquitos	38.20
Sept	2.00
	40.20
10/2 Tiquitos	1.50
April	175.00
May	45.30
June	11.10
July	35.50
Aug.	11.86
Sept.	40.20
Oct.	1.50
	320.46

Shipment Specimens to U.S.

5/24 Postage cube	2.00
5/25 Box to Lima	16.10
6/25 Mailing box	.20
6/10 Mailing box	.20
Tarma - Lm	5.70
6/21 Lima - Mej.	87.10
6/28 2 boxes - Taya	10.00
7/5 " Lm - Tm	14.70
7/15 Back to Tarma	1.50
Plants - Callao	5.50
7/19 Lima - Mej.	84.60
8/17 2 boxes Tg - Mej.	79.60
10/1 Express on above	6.90
	314.10
May	18.30
June	103.00
July	106.30
Aug.	79.60
Oct.	6.90
	314.10

Board & Lodging

4/14 Hotel Lina (3) 1da	✓ 198.80	5/8 S (1)	46.10
B (2)	✓ 2.60	S (1)	.20
L (3)	✓ 5.00	5/12 Anna	.20
4/15 L (3)	✓ 3.60	5/14 "	4.00
4/17 Rio Blanco (2) - 2da	✓ 33.20	5/12 Huimp.	2.00
4/24 Tarma 380 th 1da	✓ 76.20	4/18 S (1)	14.00
4/15 Chorrillos 1 B & 1da	✓ 7.50	B (1)	.30
4/17 Banya 1 B & 1da	✓ 12.50	5/23 B (5)	.20
4/19 S (1)	✓ .50	Huanta 4-1da	5.00
4/20 Concep. 1-1da	✓ 2.50	L (4)	70.30
4/25 " 3-1da	✓ 18.50	5/24 Huanc. 2-1da	6.00
4/26 Huanc. 2-1da	✓ 9.60	5/28 Tarma 3-1da	7.80
4/30 Mej. 3-1da	✓ 9.85	5/8 Estrella	17.20
4/29 L (3)	✓ 3.00	5/14 "	.80
4/30 B (3)	✓ 3.00	5/10 Huimp.	1.20
April	386.35	5/18 B	10.00
5/2 Huanta 4-2da	✓ 35.50	5/26 Huanc. 2-1da	.40
L (4)	✓ 6.00	5/30 L (2)	.50
7/3 B (3)	.40	May	15.00
8 (3)	2.00		5.00
5/4 B (2)	.60		1.00
8 (3)	1.20		207.20
5/5 8 (3)	.40		
	46.10		

Board & Lodging

6/5 S. Ramon 1-1/2da	3.50	7/2 B & L. K. K. K. K. K.	209.00
6/7 Huac. 2-2da	16.80	7/9 " La Puente	50.00
6/13 L.M. 20 th 3 16da.	209.80	7/20 Chorrillos 1da	100.00
6/14 " 2-1da	5.50	7/21 B & L. K. K. K. K.	5.00
6/23 S (1)	1.50	July	1.60
6/24 S. Ramon (L & B)	1.50	8/9 Quinto 3-8da.	365.60
L	1.00	8/17 " 3-8da	89.40
6/30 Yapas 2-1 1/2da	17.50	8/26 Yur. 3-4da.	82.00
6/10 Tarma 1-1da	5.10	8/27 " (Bep)	23.90
Meals	3.35	8/28 " "	5.00
6/11 "	3.50	8/30 " "	5.00
6/12 "	2.70	8/18 Quinto 1-2da	5.00
6/18 Tarma (B & L)	55.50	Aug	8.30
6/28 - (Hospital)	120.00	9/5 Yur. (Bep)	218.60
June	447.55	9/11 B & L. K. K. K. K.	✓ 5.00
7/2 Eneñas 2-1 1/2da	36.40	9/15 Yur. (Bep)	✓ 12.00
7/3 Los de Mayo 2-1da	11.80	9/18 " (Bep)	✓ 17.85
7/4 P. Yur. 2-1da	11.60	9/10 " (Bep)	✓ 15.00
7/6 San Nicolas 2-1da	31.60	9/19 " (Bep)	✓ 5.00
7/7 Sta Rosa 2-1 1/2da	33.60	9/22 Solidar 4-3da.	✓ 13.50
7/8 Meriaturani 2-4da.	17.00	9/19 La Antigua	✓ 30.00
7/13 P. Yur. 2-5da.	25.00	9/25 Quinto B 3-1da	✓ 18.00
7/18 P. B. Yur. 2-4da.	32.00	Sept.	2.00
7/21 Calapuma 2-2 1/2da	10.00		105.70
	209.00		224.05

Board & Lodging

10/1 Igarka 3-beds 66.40
 10/2 " 3-beds 8.80
Oct. 74.90

Apr. 386.35

May 207.20

June 447.55

July 365.60

Aug. 218.60

Sept. 224.05

Oct. 74.90

1920.75

3.50

1924.25

47

1971.25

Extra Provisions

4/11 Chocolate ✓ 26.00
 4/11 Canned goods ✓ 7.60

4/20 Field ✓ .20

4/22 " ✓ .30

4/23 " ✓ .05

4/17 Canned goods ✓ 33.50

4/30 Field ✓ .35

April 68.00

5/1 Knife trip 6.40

5/2 Field .10

5/7 Anna Knife 12.20

5/8 Field .10

5/9 Anna 5.20

5/12 Field .20

5/15 Nuanta trip 4.20

5/8-12 Knife 5.30

5/16 Nuanta trip 3.00

5/17 Field .30

5/23 Field .50

5/20-26 " .90

5/11 Knife trip 2.70

5/2 " " .80

5/5 Field 80

5/6 " .20

40.90

Extra Provisions

40.90
 5/7 Knife trip 2.00

5/8 " " .60

5/15 Anna .60

5/16 " .70

5/23 Field 20

5/25 " .20

May 45.20

6/1 Field .10

6/5-6/11 " 3.50

6/14 " .10

6/20 Canned goods 1.60

6/24 " " 2.00

6/27 " " 32.20

6/28 Field .30

6/3 " .60

June 40.40

7/7 Robie trip 3.00

7/29 Anna trip 2.00

July 5.00

8/2 Field .40

8/4 " .20

8/5 " .60

1.20

8/6 Field 1.50

8/7 " 2.60

8/8 " 1.60

8/9 " .90

8/10 " .70

8/11 " .50

8/14 " .90

8/18 Steamman 3.00

8/1-23 Knife by ass. 5.90

8/22 Field .20

8/23 " .10

8/28 " .05

8/11-13 Steamman .20

8/18 Steamman 1.00

Aug. 20.65

9/1-9/15 Field .60

9/8 " .90

9/11 Ste Rose trip 5.00

9/11 Steamman 4.00

9/16 Ataya trip 29.20

9/23 Field .10

9/27 Steamman 6.40

9/28 Field .50

9/27 " .50

47.20

Extra Provisions

4/25-30 Field	47.20
9/29 "	.35
Sept	10
10/1	47.65
	10
Apr	68.00
May	45.20
June	40.40
July	5.00
Aug	20.65
Sept	47.65
Oct	10
	256.90
	227.00

Misc. Supplies

4/11 Batteries	✓ 1.20
Bulb	✓ 1.00
4/9 Record book	✓ 2.00
4/10 Chicken wire	✓ 8.05
✓ Medicine	✓ 1.70
4/11 Batteries	✓ 14.80
4/12 2 amm. batteries	✓ 36.00
4/12 2 amm. & 5 wds	✓ 25.50
4/12 2 amm. & 5 wds	✓ .05
4/13 2 amm. batteries	✓ 18.00
Manual	✓ 1.00
Presents	✓ 1.00
4/18 Lantern	✓ 4.50
4/25 3 maps	✓ 2.00
4/27 Cartridge	✓ 4.00
4/28 2 pr. shears	✓ 5.00
April	126.90
5/1 Presents	5.90
5/13 Candles	1.40
5/24 Medicine	4.20
2 pr. shears	5.20
Batteries	5.40
Stationery	1.30
7/20-26 Presents	2.00
7/28 "	4.00
7/8-12 Bulb & matches	3.60
	53.00

Misc. Supplies

5/1 Tobacco	33.00	7/18 Sack	16.10
Machete	1.50	Medicine	2.00
File	2.60	7/19 Watch	6.00
Presents	.40	Sash & labels	15.00
5/2 Oil can	1.30	7/20 Machetes	1.20
5/10 Soap	1.20	7/20 Machetes	10.00
5/20 Paper	.20	July	50.30
Paste	.60		
5/25 Sack	.10	8/7 Medicine	3.10
5/27 Bulb	.70	8/8 "	7.00
Presents	1.00	8/12 Rec book & journal	8.00
6/14 Medicine	12.40	Pencils	.20
6/24 "	69.50	Books	4.00
6/27 Utensils	3.20	8/13 Medicine	6.80
6/28 Saddle bags	4.20	8/14 4 M sh paper	40.00
6/12 Cat balls	2.40	Rubber bags ⁽²⁾	18.00
6/13 Waterproof Contain	6.00	8/15 Supplies	2.20
6/26 Paste	.30	Newspapers	.80
June	10.00	8/16 Bulbs	2.00
7/20 Rope	.60	8/17 Medicine	2.40
Candles	26.70	8/27 "	2.00
7/8 Medicine	12.00	8/2 Water jar ⁽¹⁾	1.00
	16.10	8/8 Rubber bag ⁽¹⁾	8.00
		Aug	106.00

Misc. Supplies

9/16	Guide to Lorets	2.00
9/25	Stationery	1.00
9/28	Presents	.90
9/29	Sash	.70
9/30	"	.70
	Rope	1.20
<u>Sept.</u>		<u>6.50</u>

10/1	String	.50
Ref.		

Apr.	126.90
May	69.50
June	26.70
July	50.30
Aug	106.00
Sept	+6.50
Oct	.50

~~364.20~~

360.20

359.90

11.50

371.40

Oct 15

386.40

Kerosene Oil

4/15	✓ 6.50	8/31	37.40
4/20	✓ 2.50	Aug.	9.00
April	<u>9.30</u>	9/7	<u>46.40</u>
5/2	10 gals.	9/14	9.00
5/19	16.00	9/16	7.50
5/21	2.50	9/28	7.50
May	<u>21.00</u>	<u>Sept</u>	3.40
6/1	6.00		<u>27.40</u>
6/9	1.50	Apr. 9.30	
6/3-11	10.80	May 21.00	
6/13	6.00	June 30.30	
6/20	6.00	July 15.20	
June	<u>30.30</u>	Aug. 46.40	
7/17	7.00	Sept. 27.40	
7/18	4.20		<u>149.60</u>
7/21	4.00		
July	<u>15.20</u>		
8/4	2.00		
8/5	7.00		
8/10	7.00		
8/14	1.60		
"	1.80		
8/22	9.00		
8/28	9.00		
	<u>37.40</u>		

Purchase Cube & other Poisons

5/13 9 lbs. Arisa	7.00	9/16 Carera	2.50
7/21 Huautla	1.00	9/19 Ayahuasca ^{27 kg}	15.00
5/22 "	8.00	9/5 Cude	10.00
5/10 "Vega"	1.00	9/6 "	8.00
5/21 Huautla	8.00	9/29 "	12.00
5/22 "	.20	Sept.	47.50
5/24 Tallhuie	.70		
5/25 Jabonichu	1.20	10/11 Cude, ayahuasca, etc.	40.50
May ^{6/18} interceptant	27.10	Oct	
6/24 Cude Roots (Jm)	.20	May 27.10	✓
6/9 Jeph. roots	20.00	June 22.20	
July	22.20	July 5.50	
7/24 New Jersey	5.00	July 29.25	
7/15	.50	Sept. 47.50	
July	5.50	Oct. 40.00	
8/12 2 bot. Huan	8.00	Oct 191.55	
8/2	.50		
8/5	15.00		
8/8	1.00		
8/9	2.20		
8/14	.05		
8/29 16 kg	2.50		
Aug.	29.25		

Welp & Tips

4/9 Tips	✓ 1.00	5/20 Boy	21.15
4/14 ✓ (Manny)	✓ 15.00	5/23 Tips	.20
"	✓ 1.00	5/24 "	1.00
Boys	✓ .70	5/20 Morales 19da.	.30
4/16 "	✓ 2.10	Boy -	97.50
4/17 "	✓ .30	5/25 "	10.00
4/20 "	✓ 2.00	5/27 Tips	.10
4/21 "	✓ 2.00	5/29 Boy	1.00
4/22 "	✓ 2.40	5/31 Tips	2.50
4/27 5 Tips Janna	✓ 4.50	Boy 1/2 da.	.20
4/27 Morales	30.00	5/5 Boy	4.50
April	62.05	5/8 Tips	.50
		Man	.15
5/2 Tips	.90	5/9 "	.50
Man (Ada)	2.00	5/10 "	.50
5/6 Boy	.30	5/11 "	.75
5/8 Man	1.00	5/12 "	.50
5/10 "	2.15	5/13 "	.50
5/11 "	1.00	5/14 "	.50
5/12 Man/Manny	3.60	5/15 "	.50
5/14 Tips	.20	5/16 "	.50
5/8-12 Boys	6.00	5/17 "	.50
5/18 Man	1.00	5/26 Morales 2da	.50
5/19 "	3.00	5/30 Man	10.00
			.40
	21.15	May	154.75

Deeph & Tifs

4/1 Boys	3.00	7/3 Boy	.20
4/3 "	3.50	7/6 "	.50
6/5 Tifs	.20	7/7 "	1.30
Boy	2.20	7/10 "	1.00
6/6 "	2.00	7/13 Tifs 15da	4.00
4/7 Tifs	.20	7/14 Man	4.00
Boy	2.00	7/15 "	4.00
6/8 Boys	4.20	7/16 "	4.00
4/9 Tifs	.40	7/17 Boy	.30
Boy (5da)	15.00	7/18 Tifs	1.00
4/10 "	2.30	7/19 Tifs 15da	3.00
4/11 ✓ Tifs 15da	8.00	7/21 3 Boys	6.00
Boy	.20	7/24 Tifs	1.00
6/15 " 2da	5.00	7/25 "	3.00
4/17 Tifs	.70	7/26 "	.90
6/18 "	1.50	July	55.00
6/22 Boy (15da)	15.00		
6/24 "	2.60	8/1 Boy	2.00
6/26 Tifs	.70	8/2-11 " (15da)	20.00
6/28 " (2da)	8.00	8/11 " (15da)	5.00
4/30 Boy	2.00	8/12 Man	2.00
7/10 Tifs	.50	8/12-13 Boy	3.00
4/18 "	4.00	8/16 Boy (15da)	10.00
	93.80	8/17 "	1.00
			43.00

43.00	8/17 ✓ Tifs (15da)	10.40	8/16-9/12 Boy (29da)	44.45
	8/22 "	.50	9/16 "	3.00
	8/23 Boy	1.50	9/19 "	2.00
	8/24 Boys	1.70	9/20 "	1.50
	8/25 "	2.50	9/21 Boys	1.80
	8/27 "	2.25	9/22 "	2.00
	8/28 Boy	1.00	9/24 Boy (7da)	10.50
	8/29 "	1.50	9/25 "	2.20
	8/30 "	1.50	9/28 Man 3da 7da	7.00
	9/1 Tifs	.40	9/24 " (2da)	3.00
	9/2 Boy	1.50	9/1 Tifs	1.50
	9/3 "	1.00	9/4 Man	1.00
	8/3 "	3.00	9/5 30 Boys	54.50
	8/18 Tifs	1.50	9/20 Tifs	2.50
	Aug	73.35	Sept.	131.45
	9/1 Boy 3 1/2 da	5.00	10/10 ✓ Tifs	27.00
	9/6 Tifs 2 1/3 - 4da	5.00	10/2 ✓ Tifs 19da	10.00
	8/26-9/1 Boys 15da	28.00	Boy (15da)	10.00
	9/1-9/5 "	2.20		47.00
	9/7 Boy	4.0	Apr. 62.05	
	9/9 "	4.0	May 154.75	
	9/10 Tifs	.20	June 83.80	
	9/13 "	1.50	July 35.00	
	9/14 "	1.50	Aug 73.35	
			Sept 131.45	
			Oct 47.00	
			560.40	
			27	
			587.40	
		44.45		

UUC.

4/22 Telegram	✓ .60	7/6 Telegram	✓ 1.15
Bag repaired	✓ 10.00	7/18 "	✓ .95
4/13 Telegram	✓ .70	7/25 Postage	✓ .60
4/20 "	✓ 1.20	7/31 Telegram	✓ 2.45
4/27 "	✓ .75	8/16 "	✓ 1.50
April	13.25	7/19 Watch repaired	✓ 4.25

July

10.90

5/21 "	✓ .60	8/4 Postage	✓ 3.80
5/22 Postage	✓ .50	8/11 Prints (2)	✓ 2.40
5/29 "	✓ .65	Postage	✓ .20
5/27 "	✓ 2.00	8/12 "	2.60
7/2 Telegram	✓ .50	8/13 Bag repaired	✓ 23.00

May

4.15

8/14 Postage ✓ 1.60

4/12 Telegram	✓ 1.00	8/15 Oil can repair	✓ .50
Shoes repaired	✓ 1.50	8/16 Stamp or draft	2.00
4/24 Postage	✓ .10	8/17 Postage	✓ .45
Bag repaired	✓ .20	Medical tent	✓ 10.00

4/26 Postage	✓ .20	8/25 Reg. level (line)	2.50
Telegram	✓ 5.60	Watch rep.	✓ 5.00

4/24 "	✓ 3.25	8/23 Postage	✓ .60
4/28 Medical tent	✓ 60.00	8/31 "	✓ 1.20

4/29 Telegram	✓ 1.40	8/2 Cot repair	✓ 3.00
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June	73.25	8/15 Postage	✓ 3.10
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Aug

59.35

2.90

62.25

9/6 Radio	✓ 7.32
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9/16 Postage	✓ 4.90
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Prints (line)	.20
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9/23 " (Postage)	6.75
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9/25 Medical cert.	✓ 5.00
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Print (postage)	.20
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Postage	✓ .70
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9/28 Prints (Postage)	3.20
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9/30 Postage	✓ 3.70
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9/1 Radio	✓ 1.68
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9/17 Postage	✓ 3.10
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Sept	36.75
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Apr	13.25
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May	4.15
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June	73.25
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July	10.90
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Aug	62.25
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Sept.	36.75
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	197.65
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	200.55
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Recapit.
Apr. 9 - Oct. 70

	Dollars	Dollars @ 174 = 4.00
Transportation	3301.35	1320.54
Baggage transp.	314.10	125.64
Board & Lodging	1924.25	769.70
Extra Prov.	227.00	90.80
Miss. Supplies	386.40	148.56
Oil	149.60	59.84
Coke, etc.	171.55	68.62
Help	587.40	234.96
Incidentals	200.55	80.22
Bag. Transp.	320.46	130.18
Total	7540.66	3018.26
	27.00	10.80
	7567.66	3029.06
Oct. 11 - Nov. 15		
Brazilian Currency	2582.66	
Transportation	3491.70	419.00
Baggage transportation	181.20	24.75
Board & Lodging	1357.50	163.24
Extra provision	2.80	
Miss. Supplies	141.20	16.94
Enclosure	45.00	5.40
Help	301.10	36.13
Miscellaneous	135.10	16.22
	5655.60	682.68
		678.68

Brazilian Currency

Transportation

10/11 Carfare	✓ .80	10/29 Auto	✓ 50.00
Rowboat	✓ 3.00	10/30 1 fare Para-Guapá	✓ 39.20
10/12 Tip on "Domestic"	✓ 80.00	Oct.	697.70
Auto	✓ 20.00	11/1 Carfare	✓ .60
10/13 Carfare	✓ 1.90	11/2 Taxi	✓ 10.00
10/14 "	✓ .80	Carfare	✓ .40
10/15 R. Negro trip	✓ 41.00	11/3 Taxi	✓ 5.00
Auto	✓ 30.00	1 fare Para-Manguinhos	✓ 1.00
Carfare	✓ .80	11/5 " return	✓ 1.00
Rowboat	✓ 4.00	Taxi	✓ 5.00
10/16 Carfare	✓ 2.40	11/5 1 fare Guapá-Park	✓ 40.00
Auto	✓ 30.00	11/7 Auto	✓ 30.00
10/17 Auto	✓ 100.00	Carfare	✓ .20
Carfare	✓ 1.00	11/8 Taxi	✓ 5.00
10/18 2 fares, Manguinhos-Para	✓ 206.00	2 fares Para-Manguinhos	✓ 2.00
10/19 R. Negro trip	✓ 41.00	11/11 " return	✓ 3.00
Carfare	✓ 1.00	Bus	✓ 3.00
10/24 Taxi	✓ 5.00	Carfare	✓ 2.80
10/25 Auto	✓ 35.00	11/14 2 fares Para-Rio	2685.00
Carfare	✓ 1.20	11/14 2 fares boat	
10/26 "	✓ 1.80	Nov.	2794.00
10/27 "	✓ 1.00	Oct.	697.70
10/28 "	✓ .80		3491.70
	608.50		

Baggage Transportation

10/18 Boat to hotel	✓ 60.00
10/24 Boat to hotel	✓ 30.00
Oct.	90.00
11/3 Boat to hotel	✓ 1.00
11/5 Boat to hotel	✓ 4.00
11/5 Hotel to boat	✓ 15.00
11/8 " " "	✓ 11.80
11/11 Mangrove - Para	✓ 7.10
11/15 Hotel to boat	✓ 50.00
Boat fare	✓ 2.30
Nov.	91.20
Oct.	90.00
	181.20

Board & Lodging

10/18 Manaus 2-8 1/2 da.	✓ 296.00
10/31 Para 2-7 da	✓ 372.30
Oct.	668.30
Oct.	
11/4 Mangrove 1-2 da	✓ 49.00
11/5 Breakfast	✓ 12.00
11/7 Para 1-7 da	✓ 165.00
11/11 Mang. 2-3 da.	✓ 106.00
11/12 Para 1-1 1/2	✓ 30.00
11/15 " 1-5 da	✓ 339.00
Nov.	689.20
Oct.	668.30
	1357.50

Extra Transp.

10/15	✓ 2.00
10/16	✓ .20
Oct.	2.20

Misc. Supplies

10/15 Naphthalene	✓ 1.50
10/25 Sulfur	✓ 30.00
10/18 Soap	✓ 6.00
11/1-8 "	✓ 15.00
Telescope book	✓ 50.00
Oct.	102.50
11/1 Watch	✓ 16.00
11/4 String, socks, tape	✓ 9.00
11/3 Naphthalene	✓ 1.50
11/12 String	✓ .70
11/13 Rubber band	✓ 5.00
11/14 Paper clips	✓ 3.50
11/15 Sack	✓ 3.00
Nov.	38.70
Oct.	102.50
	141.20

Purchases Cebu (Timbo)

10/14 Manaus	✓ 5.00
10/29 Para	✓ 10.00
Oct.	15.00
11/1-5	✓ 30.00
Oct. - Nov.	45.00

Help & Tips

10/15 Tips	✓ 1.00
Man	✓ 6.00
10/16 "	✓ 5.00
Tips	✓ 1.00
10/18 Man	✓ 4.00
✓ Tips (Coto)	✓ 26.00
10/17 Man	✓ 12.00
10/27 "	✓ 6.00
10/29 Man 1-2 da	✓ 33.00
10/31 ✓ Tips	✓ 15.00
Oct.	109.00
11/3 Pay	✓ 4.00
11/4 "	✓ 5.00
Tips	✓ .70
11/1-5 "	✓ 7.00
Man	✓ 5.00
11/8 ✓ Tips (Coto Jugg.)	✓ 5.40
11/11 ✓ " (" ")	✓ 10.00
11/15 ✓ Tips (" ")	✓ 155.00
Nov.	192.10
Oct.	109.00
	301.10

Miscellaneous

10/25 Postage ✓ .60

11/30 Telegram ✓ 7.80

Oct. 8.40

11/8 Cablegram (Wash, D.C.) ✓ 46.70

11/12 Passport visa / 30.00

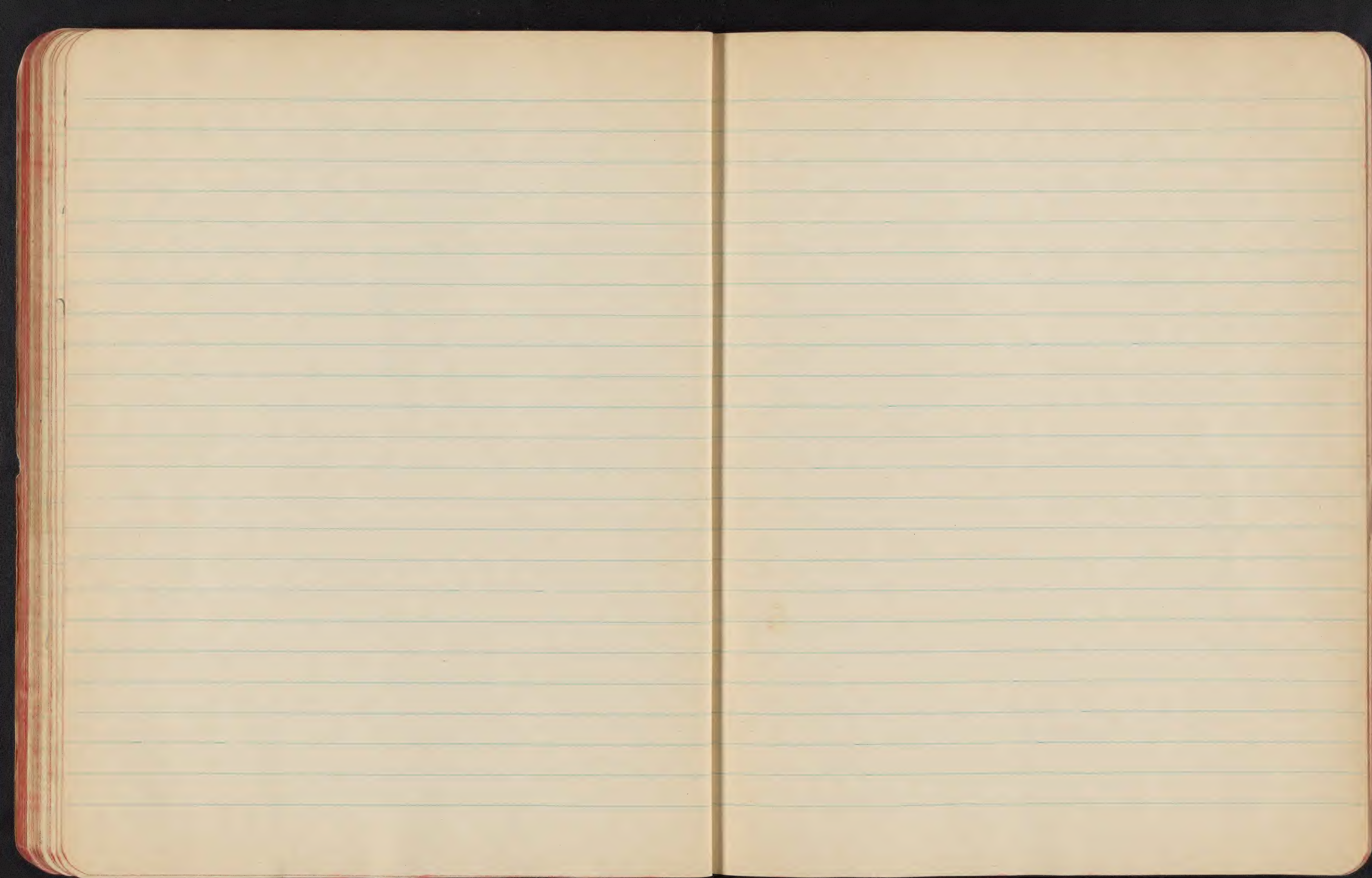
o Purch. \$100 Ac 20.00

Duty on labels ✓ 30.00

Nov. 126.70

Oct. 8.40

135.10



Cambridge Exped. Brit Hond
Hunt field notes (photostat)

✓ ✓

1943

